# Clinical Lecture
ON THE
# CATHETER-TREATMENT OF PERINEAL FISTULÆ.

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GENTLEMEN,—I desire to direct your attention to the case of the patient now before you, who was admitted some time since on account of urinary troubles. When he was admitted to hospital he told us that some months previously he had fallen from the top of an omnibus, alighting on his buttocks; that a severe injury was inflicted on his perineum, that there was at the time a free discharge of blood from his urethra, that he micturated with great difficulty, that inflammation supervened, and that the surgeon under whose care he was opened an abscess which formed in his perineum, after which urine continually flowed from the wounds. Attempts to pass instruments into his bladder had been made, but they were unsuccessful. On examination, two large fistulous openings, one on the right and the other on the left side of the perineum, were found; and upon urethral exploration, an obstacle, which I had but little difficulty in recognising as a traumatic stricture, was found in the bulbous portion of the canal. When he micturated very little urine came by the meatus, most of it flowing from the fistulæ. The stricture was, as traumatic strictures often are, exceedingly difficult to penetrate, but with the aid of a very small elbowed French catheter I succeeded in reaching the bladder. The impression I formed was that, as a result of the injury inflicted on the urethra, there had been irregular adhesion of its lacerated edges, and that this and the subsequent cicatricial contraction had led to an alteration of the normal axis of the canal, so that it had assumed an angular form at its strictured part. This conclusion was arrived at from the impossibility of passing any straight instrument, stiff or flexible, or any metallic bougie with the ordinary curve; while an instrument with an angular or *coudée* end readily found its way into the opening of the stricture, and thence into the bladder; and I was strengthened in this belief by subsequent experience, for a like difficulty with the one instrument and a similar ease with the other was experienced until the stricture was dilated to a not inconsiderable extent. I may remark, by the way, that, had I confined myself to the use of the ordinary French flexible or English gum or metallic catheters, this case would in all probability have furnished an additional instance of impassable stricture, but the simple expedient of using an instrument suited to the exigencies of the case fortunately prevented any addition to that list in which no surgeon desires to figure.

Having now laid before you the condition in which our patient was found, let me next direct your attention to the means adopted for the dilatation of his stricture, and especially for the cure of the fistulæ.

Our first desire was—as it should be in every case where urethral fistulæ co-exist with stricture—to restore the canal to its normal calibre, and this we accomplished by a combination of the continuous and gradual dilatation methods, and you will often find that complete dilatation of the stricture is all that is required; for the urine, finding the barrier to its egress removed, flows through the natural channel, and ceases to pass into the fistulæ, which being relieved from the irritation arising from contact with such putrescent fluid, take on healthy action, and cicatrisation ensues. In this case, however, as often happens where there is loss of substance—i.e., where the openings are large, dilatation failed to effect a cure of the fistulæ, and I had now to consider how the access of urine to the fistulous openings might be most surely prevented.

Two methods of accomplishing this desideratum presented themselves—namely, (1) tying in a catheter; and (2) the systematic use of a catheter at each act of urination.

As some of you know, I intended to adopt the former course, but the patient has himself so intelligently carried out the latter that a cure has resulted. If you will examine his perineum and scrotum—where a fistula had also formed—you will perceive that cicatrices mark the points where a few weeks ago there were masses of granulations, and the man tells us that "water now never comes the wrong way;" if he will maintain the position in which he is now placed, by the occasional passage of a bougie, his stricture troubles and their most distressing accompaniments are at an end.

The result is certainly most satisfactory, and has been obtained, I may tell you, much more easily than I could have ventured to hope. The treatment of fistulæ by tying in a catheter, of which I would now speak, has fallen into undeserved disuse, but in cases where you cannot rely upon the patient's intelligence in carrying out the method just mentioned, or where the urethra rebels against the frequent passage of a catheter, you will, I feel assured, find it most useful. I should, however, not conceal from you the fact that this mode has been "weighed in the balance and found wanting" by those who are justly entitled to speak with authority. Sir Henry Thompson has stated that on account of the capillary action which is set up between the sides of the instrument and the urethral walls urine flows out, and finds its way through the fistulæ. "This mode of treatment," he writes, "is to be regarded as inadequate to the cure of fistulæ, except so far as it produces dilatation; and it is one which has obtained countenance chiefly from the plausibility of a theory which is certainly unsupported in practice." Mr. Reginald Harrison, who has recently written on this subject, holds a similar opinion—viz., "I have never found any advantage from the retention of a catheter in the bladder with the object of curing a fistula, as the urine invariably makes its way into the fistula by the side of the instrument." To the adverse testimony of these two surgeons I could easily add similar opinions culled from the works of many other well-known and distinguished writers, but as I seek not to secure your condemnation of, but your favour for, this method, it would be unwise to so prejudice you as to prevent your acceptance of it.

For the purpose of proving that the opinions just quoted are not absolutely correct, and that the mode of treatment under notice is not deserving of the obloquy cast upon it, let me recall to your recollection two cases recently in this hospital. As the first one presents features of considerable interest apart from the result of treatment, I shall recite it at length. One evening I was sent for in haste to J. K——, who had been admitted after the hour of visit, suffering from retention of urine. The man was then suffering so acutely from the effects of retention that he was unable to supply me with the particulars of his case, but I subsequently learnt that he had been under treatment in hospital for stricture, and that he had been dismissed six weeks previously, a full-sized bougie having been passed. He had remained fairly well until a few days before his readmission, when he began to find difficulty in urination; thirty-six hours before he came under my notice he was attacked by complete retention, and he was seen by a medical man, who at that time and subsequently made attempts to pass a catheter but failed, and he was then sent here. On inspection a huge hypogastric swelling presented itself; there was great œdema of the scrotum and penis, and bulging of the perineum on the right side. On account of the perineal swelling no rectal examination could be carried out. Attempts to pass a catheter were unsuccessful, and the administration of chloroform, which was commenced, had to be stopped, as dangerous symptoms supervened. I at once determined to aspirate his bladder, and drew off two and a half quart bottlefuls of highly ammoniacal urine. The perineal abscess was freely opened and a considerable quantity of pus was discharged; it was odourless.

On visiting the patient next morning I found the house-surgeon in the act of applying the exhauster of the aspirator to the needle, which had been allowed to remain *in situ*, but no urine entered the receptacle. There was therefore no water in the bladder, a circumstance of which an explanation was speedily forthcoming, for the bed on which the man was lying was soaked with urine, which had found egress through the perineal opening. The œdema of the parts had become much lessened. Catheterism was still impossible, but two days later a bougie conductrice was safely conducted into the bladder, and through a catheter, which was screwed on to the end of the conducting bougie and passed into the viscus, several ounces of urine flowed.

Before speaking of the treatment adopted for the cure of the fistula which thus resulted, let me give you in a few words my view of the pathology of this case. When I first saw the patient certain of the symptoms suggested rupture of the urethra and extravasation, for there was a history of prolonged retention, and an œdematous scrotum and penis. But the presence of an over-distended bladder disproved that idea, for I need hardly tell you that had rupture taken place the urine would speedily have found its way outwards, and would have spread into the perineum and scrotum, and upwards through the cellular tissue covering the abdomen. Further, the pus evacuated from the perineal abscess would have had a urinous smell, but it was odourless. The abscess was, in short, not the result of extravasation, but it was the cause of the retention, and the subsequent escape of urine through the perineal opening resulted from necrosis of the urethra occasioned by inflammatory action. If assistance had been but a little longer delayed urine would undoubtedly have been found mixed with the pus, and had relief been afforded at an earlier period rupture would have been averted. I have digressed from our subject, but the lesson which this case teaches is a vital one, and if it impresses you with the necessity for early interference in cases of perineal abscess the time devoted to its consideration has been usefully spent, for there will be no risk of your allowing a similar case to be followed by such undesirable consequences as ensued in this one.

Our patient's progress, though it was slow and protracted, can be laid before you in a very few words. When the urethra had resumed its normal dimensions, a full-sized English gum catheter was lodged, and the fistulous opening, which was a large one, gradually decreased in size, the discharge of pus and urine from it became less and less, and ultimately a cure was effected. Before that most desirable result was attained there were many vicissitudes, for during a period of several days we found that all the water came through the catheter, and then when it seemed that a cure was nigh, we were told that some drops of urine had found their way through the fistula. This latter circumstance was observed only when the cathetor had lain in the urethra for some days, and its explanation was found in the fact that the eye of the catheter had become encrusted with the phosphates, and that the means employed were therefore imperfect. Acting upon this suggestive hint the dresser, Mr. John Reid, used a fresh instrument every three or four days, a procedure which perfectly overcame the difficulty, and from this time progress was uninterrupted. The oversight of the necessity of using a new catheter at short intervals furnishes us with one, at any rate possible, reason for the failure of this method of treatment in the hands of those who have employed it and condemned it; and if you should be called upon to adopt it, you should bear in mind our experience here. In tying in a catheter you will find the following plan a good one. Procure a flat, narrow india-rubber band, such as is sold by stationers, pass it over the glans into the groove behind the corona, and attach it to the catheter by two or more threads of well-waxed suture silk. This is a cleanly and efficient mode, and seems to me to be superior to plasters or tapes, which are generally recommended. The second case to which I have alluded as an example of the utility of bladder-drainage was one of long-standing multiple perineal and scrotal fistulæ, where many repeated and varied attempts at effecting their closure had proved futile. In this case extreme induration of the tissues was a most marked feature. Treatment by means of a catheter tied in was ultimately adopted, and in the course of a few weeks the abnormal openings were soundly healed, and the induration had completely disappeared.

These two cases show you that perineal fistulæ can be cured by this simple and easily carried out procedure; but a modification of this method, which I regard as a decided improvement, although I have not yet had an opportunity of putting it to the test of practice, has recently been proposed by Mr. Chiene of Edinburgh. His method of bladder-drainage consists in the establishment of a syphon, which he accomplishes by means of a piece of india-rubber tubing attached to a gum-elastic catheter, which is introduced so that its eye is just within the neck of the bladder, and it is kept in position by sticking-plaster. The tubing passes over the side of the bed into a bottle placed on the floor, and by filling the tube and the bottle with carbolic water a syphon action is set up. This is only a rough and imperfect sketch of the mode devised by Mr. Chiene; but you will find full details in his most suggestive paper contained in the *Edinburgh Medical Journal* for December, to which I refer you. Now, if the syphon action can be maintained we may regard the india-rubber tube as an elongation or prolongation of the ureters, for a direct and continuous connexion is established between the kidneys and the recipient vessel, and the bladder ceases for a time to exercise its normal function as a receptacle for the urinary secretion. Mr. Chiene has shown that this is possible; hence we must view this new mode as a decided advance on the old one, and with its introduction the objection to the catheter-treatment must disappear; and I believe that bladder-drainage will ere long become an established practice among those who are called upon to treat cases of urinary fistulæ.

# ON HOSPITALS:

## THEIR MANAGEMENT, CONSTRUCTION, AND ARRANGEMENTS IN RELATION TO THE SUCCESSFUL TREATMENT OF DISEASE, WITH REMARKS ON THE ORGANISATION OF MEDICAL RELIEF IN THE METROPOLIS.

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### I.—THE CONTROL AND MANAGEMENT OF HOSPITALS.

By no means the least important factor in the successful working of hospitals, is their right government. The concerns of all such institutions are many and various. For their proper regulation the fittest agency for each part of the appointed work should be selected, or elected. The general government, including the financial control, the special regulation, and the professional agency, superior and subordinate, are all necessary for their effective management.

In the general government, the public, as distinguished from the purely professional interests, should be chiefly regarded.

In the immediate management the professional element should not only be predominant, but absolute; for professional training alone can fit any man thoroughly to understand the multitude of matters of detail which require to be dealt with, with economy, despatch, and efficiency.

In most foreign countries the central and superior control is in the hands of a governmental administrative agency. In Paris, this is represented by the Director of the Assistance Publique, under the supervision of a council presided over by the Prefect of the Seine, and consisting of members of the municipal council, medical members, mayors, and other notabilities. The director is believed to be practically an independent officer in all executive measures. He has under his orders a staff, comprising a general secretary and several bureaux, each with its superintendent in charge, as may be found detailed in the French National Almanac.

The nearest approach to this organisation with us is the Local Government Board, which, however, in its attributes and functions differs very widely from it.

A cursory study of the laws of most European countries regulating the control and management of institutions devoted to the care of the sick, and to the relief of destitution, with which they are usually associated, has satisfied me that they will not fit easily into our system of self-government and absence of State interference; and that, beyond some useful general principles, there is little in them that will bear direct transplantation.

That our manner of dealing with them, although right in principle, is susceptible of considerable improvement in practice, I hope to be able to show when treating of the organisation of medical relief in this great metropolis, which is a kingdom in itself. The chief and most important change required, I hold to be the entire separation of sickness from mere destitution, this being merged in the general hospital system of the country, as an integral and inseparable part of the great question of public health; all other

matters connected with destitution continuing, as at present, under the Poor-law authorities.

The hospitals themselves I consider ought to have just so much of State control as to secure their proper direction, with the remedy of such defects as may be shown to exist. I know of no good reason why the different hospitals of London and other great cities, should exhibit such very different risks to life in similar circumstances, diseases and accidents, as they do now, and have done for long past; and why a proper uniform system of hospital record in all departments of their administration should not be as compulsory as customs, trade, and other economic returns, in matters of far less general and scientific interest.

If the State interferes, as it does rightly, to protect all classes who are unable to protect themselves from injury and misgovernment, surely the sick and those who are afflicted by causes over which they themselves can exercise no control, demand the same consideration for the body, as they now receive for the mind and its disorders. It involves but the extension of a principle which is firmly established in our legislation, and it can easily be so regulated as in no way to interfere injuriously with the self-government which is still more deeply impressed on our national character, and guides us so surely and successfully in most matters of social and domestic economy.

In the lives of the poor, and of all engaged in manual labour, sickness plays a much more important part than it does in any other class of society. The munificent public and private charities of this country are amply adequate to deal with all legitimate demands upon them without inflicting additional burdens upon the purses, or taxes upon the time and attention, of the wealthy and benevolent, if they were only a little better organised, and somewhat more judicious care were bestowed upon their distribution.

### GENERAL MANAGEMENT.

The general supervision of the concerns of all large hospitals should be in the hands of a mixed committee or body of governors, sufficient in number to be subdivided into sections of convenient size, to control the financial arrangements, additions to or alterations of buildings, and similar matters.

Should it not be deemed expedient to introduce an official element into this body, there is fortunately in such a community as ours, no lack of persons of cultivation and leisure strongly imbued with philanthropic sentiments, ready and willing to undertake such duties.

This general committee, by whatever name it is called, should be purely administrative, and have no executive functions.

On it should be men possessed of an adequate knowledge of finance, of structural arrangements, and of such economic principles as are required in the general control and direction of an establishment, whose special function is to do the largest amount of good to the sick and suffering, without prodigality or parsimony, and without fear or favour.

There are many circumstances connected with this general management of hospitals, in which the aid and advice of educated women would be valuable, both in council and in action. The laundry, the cooking department, the domestic arrangements of the nurses and female servants, as well as the women's and children's wards, would all benefit by such supervision. Hence, a certain proportion of all general committees should consist of ladies.

On the committee should also be the consulting physicians and surgeons of the hospital itself, and possibly other distinguished members of the profession, unconnected with the hospital, to act as a special medical committee; to see that, in the application of the means of relief, the institution is kept well abreast of the progress of the art and science of medicine and surgery, and to assist, in consultation with their lay brethren, to deal with abuses where they are found to exist, and, where technical and special knowledge are needed, to suggest the best means for their remedy or removal.

In such a body, the public and the profession would alike have confidence. The former would have the assurance that their money was well spent, that the hospital was humanely conducted, and that the poor and afflicted obtained all the advantages intended for them. The latter would be assured that the personal benefit of each patient was carefully considered, and that while none were made the subject of questionable experiments, the interests of the progress of science were not neglected, in introducing new and improved means for the cure, and, above all, for the prevention of disease—the latter being of national importance.

Such an organisation would not interfere injuriously, if at all, with vested interests or founders' wishes so long as these latter were in harmony with the constantly progressive changes in society, and the new conditions arising out of such changes.

The above is no hypothetical or speculative scheme, for, with some modifications of detail, it may be seen in active operation in some of the well-conducted hospitals of the United States at the present moment, and in the great hospitals of Edinburgh and Glasgow.

All persons engaged in inquiries into our hospital system know how difficult it is to obtain reliable information, and how little the public or the profession know of the exact state of most of our hospitals. This does not usually arise from any desire for concealment, but because each is more or less a law unto itself, and there is a want of uniformity in the system of records, which is seldom kept in such manner as to be of any real scientific or administrative value, so far as the published statements of hospitals indicate.

### SPECIAL OR EXECUTIVE CONTROL.

The immediate government of a hospital should be entrusted to a resident Medical Superintendent. It is so generally in the United States of America, in some of the greatest hospitals of the continent of Europe, in the most important hospitals of Scotland, and in the large and well-managed separate Poor-law Infirmaries of this metropolis. To the medical superintendent all persons within the walls of the institution should be strictly and directly subordinate. There should be no concurrent, separate, or conflicting authority. He should not be charged with the treatment of the sick, and should neither possess nor exercise any power of interfering with the physicians or surgeons in their treatment of cases of disease, accident, or injury. The direction of all other internal concerns should be exclusively in his hands, such as the maintenance of order and discipline, the regulation of supplies of all kinds, the custody of all appliances and instruments, and the initiation of all such structural and other changes as may from time to time be found necessary. In matters of finance and supply he should act under the orders of the special sub-committees of finance and buildings, appointed from the general governing body. He should regulate the admission and discharge of patients, and the keeping of the records of the hospital, with the aid of such subordinate staff as is always required in great institutions. The out-patients' department should also be under his control. The appointment, removal, and distribution of all nurses, servants, and subordinates generally, should likewise be vested in him, subject to the immediate control of a house committee. He and all the sub-committees should submit an account of their proceedings, monthly, or as much or less oftener as may be deemed necessary, to the general committee at its appointed meetings, with whom should rest the final sanction and approval of all matters connected with the institution. The general committee should have a paid secretary to arrange and keep its records, and be the official medium of communication between that body and the officers of the hospital.

If there be any class or kind of public institution which more than any other demands the possession of special and technical knowledge, and more direct unity of authority in its immediate management, I hold it to be a hospital. A medical superintendent, from his professional training, is alone competent to gauge at once with promptitude and decision all the requirements of such an institution; and, as he must always be appealed to in the last resort, common sense and the proper conduct of business of all kinds in every other walk of life, indicate that he should possess the power, in the first instance, of dealing with every such matter as pertains to the economical and efficient control of a place devoted to the healing of the sick. Fettered as he would be by his responsibility to special committees and the general committee, there would be no fear of his abusing such authority, for a sure and swift remedy could be found for such abuse. But, as a matter of fact, it is not abused in those institutions in which it is in use, as I have had several opportunities of seeing.

However, even our existing system, mediæval and out of harmony as it is with the age in which we live, is better than that of the director of a French hospital, acting solely under the orders of a central official authority, which is about the most inefficient and mischievous form of government that I have ever seen in action.

Reform in the direction above indicated will not, I know, meet with ready acceptance from many benevolent and philanthropic persons, whose views are entitled to the most respectful consideration. We are as a people slow to mend our ways, and have a not unnatural dread of changes, which are usually regarded as more or less leaps in the dark.

Yet, this is in no way a speculative change, for it has long been in practical operation in other places, and is so in one important class of public hospitals among ourselves. Let those who have any misgivings on the subject visit and examine the institutions referred to for themselves, and see in their economy, efficiency, and the absence of all friction in their working, undeniable proof of the soundness of a system which has passed from the region of discussion to that of accepted fact.

The axiom that unity of executive control means efficiency of management, applies quite as much to public as to private business. Hospitals, I contend, form no exception to this, and the more general rule that those are best qualified to conduct a business successfully, who are best acquainted with its requirements.

### NURSING.

The most important of all the subordinate agency required in hospitals, is undoubtedly that of nursing, of which indeed it would be difficult to over-estimate the value in its proper place, and in due restriction to its special purpose.

For the moral and domestic direction of the nurses, and for the thousand daily needs essential for their comfort and happiness, together with many collateral duties which a male superintendent cannot properly discharge, a matron is required—not as an independent and coördinate authority, but as an integral part of the machinery of management, kept in harmony by the single direct ruling authority.

That skilled and trained labour is infinitely more efficient and trustworthy than unskilled and untrained labour, is undeniable. But, to elevate nursing into a special profession, and to arm it with independent authority in the management of disease or accident, I hold to be a mischievous mistake, alike in public institutions as in private life. It is, and must always be from its very nature, a subsidiary function, but not the less valuable or important on that account. To elevate the minor to the position of the major, is as illogical in theory as it is unsound in practice.

Nurses stand in the same relation to the surgeons and physicians of a hospital that non-commissioned and warrant officers do to the officers of the army and navy, and that skilled artisans in a factory or workshop, do to the foremen and scientific directors of the works. To arm them with independence in any form, is as impolitic in the one, as it would be destructive in the other.

I cannot, again, concur in any scheme of connecting the duty of nursing with any form of religious or quasi-religious organisation; for hospitals are open to all classes, sects, and creeds, and should be absolutely free from even the suspicion of any sectarian bias, or proselytising tendency.

Far be it from me to underrate the possession on the part of a nurse of the deepest religious feeling, for there can be no better guarantee of her tender consideration for the sick, and of her conscientious fulfilment of her proper duties, which are entirely secular and professional, and should remain so. Nearly forty years ago I myself applied to the Roman Catholic Archbishop of Calcutta to grant me the services of some of his religious ladies, to organise and introduce into the female wards of the Medical College Hospital, then under my executive charge as secretary and resident medical officer, an improved and skilled system of nursing, at that time quite unknown in British India. He complied, and for some four or five years these exemplary and truly Christian women conducted the duties of nursing in the most perfect manner, under my constant personal supervision, and that of my late colleague, the then professor of midwifery. The successor of the archbishop above referred to, much to my regret and with many apologies on his part for taking a step in opposition to the action of his predecessor, withdrew the ladies in question. His plea was that the earnest devotion of the nuns to purely secular work, interfered with the strict performance of their religious duties. From first to last they never stepped beyond the exact line of their hospital work, so far as the sick were concerned, or assumed functions or powers inconsistent with their relations to the professor or myself. The harmony of action and efficiency of nursing were unbroken, and we parted with mutual regret and regard. I assume, then, to speak with authority on a question which has recently greatly exercised the public mind, and which, in the instance referred to, is now happily at rest.

I do not enter into the question of the right method of training nurses, because it would need a paper to itself, and is not necessary to my contention. Moreover, it has been treated exhaustively by one who can never be mentioned without an expression of the respect and admiration due to exceptional knowledge of the subject, to rare ability in its consideration, and to a life-long devotion to a work which will for all time be associated with her name.

The nursing department of St. Thomas's Hospital, the excellent arrangements of the great Infirmaries in Scotland, and the special provision for the same end made at the Johns Hopkins Hospital at Baltimore, with many others which might be mentioned, are all typical and efficient modes of dealing with the question of training, in the only manner that appears to me to be thorough, and free from objection.

The mode of appointment of the medical officers of all civil hospitals in the kingdom is probably not free from objection; but so long as it brings the best men to the front, and secures to the sick the ability and care necessary for their restoration to health, there is no pressing reason for suggesting a change. To men possessed of the requisite knowledge and skill, hospital offices are sure passports to public favour and to professional reputation. This will, however, do little for those who lack the higher qualities which go to the formation of a perfect surgeon and physician, such as are to be found in all our great institutions.

*(To be continued.)*

## THE PATHOLOGY AND TREATMENT OF DIARRHŒA IN PHTHISIS.

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DIARRHŒA is often the cause of fatal termination in phthisis, its exhausting discharges reducing the weight and impoverishing the blood more than the cough and expectoration, or even than the fever. Three different kinds of diarrhœa are met with during the course of the disease. 1st, That arising from acidity of the primæ viæ; 2nd, from intestinal ulceration; 3rd, from lardaceous disease of the intestines. A great deal of the diarrhœa connected with the first stage of phthisis is attributable to the first cause, and many practitioners think when they have allayed this, they have arrested ulceration, whereas they have only got rid of dyspepsia. It is unnecessary to dwell on this form, which as a rule arises from over-feeding patients, and is accompanied by a coated tongue, tenderness in the right hypochondrium and epigastrium, loaded urine, anorexia, flatulence, and frequent light-coloured stools.

The second form, or intestinal ulceration, is the commonest cause of fatal diarrhœa in phthisis, and prevails in a considerable proportion of third-stage patients. Louis found ulceration of the intestines in five-sixths of his cases, Bayle in 67 per cent. of his, Lebert in 67 per cent. of his Breslau ones, and in only 39 per cent. of his Zurich ones. The Brompton Hospital post-mortem book for the last twelve months gives the following. Out of seventy-five cases of phthisis in which the intestines were examined, sixty-one had ulceration of a tubercular nature, giving a percentage of 81, a higher percentage than that of either of the above authorities except that of Louis. It is only right to state that a most careful search was made on each occasion by the present pathologist, Dr. Ewart.

The pathology of tubercular ulceration requires a large number of specimens to display its exact course, most autopsies only showing the last destructive stages.

Ulcers are to be found occasionally in nearly the whole intestinal tract below the duodenum, but they are so extensive and involve so great an amount of the mucous membrane of the large intestine as often to give it an entirely wormeaten appearance, and in many instances the large intestine of a case of phthisical diarrhœa cannot be distinguished from that of tropical dysentery, so well por-

trayed lately by Sir Joseph Fayrer in his Lettsomian Lectures. In the small intestine, however, especially in the ileum, we are able to trace the early steps of the ulcerative process, and I hope the cases I am about to relate will illustrate these. The first stage consists of an inflammatory hyperplasia of the solitary and agminate glands, as shown by their prominence when the intestine is opened. The second stage consists either in their conversion into pustules by formation of matter, or by their undergoing caseation. Either phase is followed by the third stage, which is the evacuation of their contents, leaving behind ulcers with smooth floors and sharp, clear-cut edges. Up to this point the process is held by many authorities to be inflammatory, and not strictly tubercular. After a while grey tubercle is detected in the floor of the ulcer, which in time undergoes caseation, causing extension, vertical or lateral, of the original ulcer.

The secondary tubercles follow the line of the bloodvessels, and sometimes are seen from the peritoneal surface, demonstrating how deep these ulcers extend. When ulceration has arrived at this stage, each spot presents thickened irregular edges and an uneven floor. The intestinal wall around them is generally thin and wasted, and it is often easy to recognise the ulcerations from outside without opening the intestine. In time, these patches, extending, join neighbouring ones, and eventually the whole circumference of the mucous membrane becomes a mass of disease. It is in this condition that we often find the colon and sigmoid flexure. Before ulceration, however, reaches this degree, it is not uncommon to find separate ulcers of great length; Louis found one measuring eight inches, the floor being formed by the muscular coat, except in the centre, where even this had disappeared, and only the peritoneal coat remained. Considerable thickening of the peritoneal coats, especially in the region of the ulcers, takes place, and thus it is that perforation is comparatively rare. When it occurs, peritonitis is inevitably set up, but even then it is sometimes of a localised description, the extravasations being walled off by fresh adhesions. As a rule, however, the peritonitis is general, and death soon follows the perforation. Rindfleisch gives a case where several coils of the intestines were adherent, and perforations took place in the adjacent portions in five different places. Occasionally vessels are penetrated by the ulcerative process, and death occurs by hæmorrhage. Hanot states that he saw two such instances in the service of M. Lasègue, in each case the amount of blood lost being very striking. After death the source was found to be a small opening in a vessel in the middle of a Peyer's patch, which was deeply ulcerated. Biermer gives a case of large intestinal hæmorrhage following tuberculous ulcer of the rectum in a child.

These are the most unfavourable pathological courses of the process; but, on the other hand, the ulcer may shrink, the walls become more indurated, and at length form a puckered cicatrix in the mucous membrane, largely contracting the circumference of the intestine; and in patients dying of chronic phthisis these scars are occasionally seen.

Accompanying the ulcerative changes we often find considerable swelling of the mesenteric glands, but this is generally the case in the later stages of the disease. Walshe found alteration in these glands in from one-third to one-fifth of his cases of phthisis.

Let us now take some examples of intestinal ulceration to illustrate the above remarks.

CASE 1 is one of advanced phthisis, with the common accompaniment of disease (chiefly lardaceous) of the liver and kidney, giving rise to ascites and anasarca, but at the same time intestinal ulceration was proceeding, causing obstinate diarrhœa. John B——, aged twenty-nine, draper's assistant, was admitted into the Brompton Hospital, Oct. 30th, 1879, with a history of cough, loss of voice, expectoration, and wasting for eight months. Night sweats commenced with illness, but have ceased lately. Diarrhœa appeared a month ago, but stopped in fourteen days; then œdema of the legs and ankles commenced. On admission the appetite was good; cough and expectoration moderate; temperature, pulse, and respiration all normal; weight 8 st. 5¾ lb.; pupils rather contracted; urine contained albumen (¼). Examination of the chest showed dulness, flattening over the whole left chest; cavernous tinkle was audible from the clavicle to the third rib, and above the scapula, and crepitation was heard below these points. Hepatic dulness was increased upwards. In December the patient became excited and wandering in manner and speech. The bowels were costive, the albumen increased to ¾ of the test-tube; the œdema became more extensive. After free purging the head symptoms subsided; the œdema diminished, and the amount of albumen was reduced to ⅓. Diarrhœa returned on the 28th of January, 1880, and at first was very moderate, the motions being two or three daily. It gradually increased to five motions a day at the end of February, but under a simple regimen of milk and beef-tea the daily number of stools was reduced to three. On the 11th of March the patient became so weak that a more generous diet, including brandy, was adopted, and the diarrhœa increased to nine and eleven motions a day. Under opiate and astringent enemata it was reduced to two motions a day, but the number speedily increased if the enemata were omitted. On the 2nd of April the œdema increased, and ascites made its appearance; the urine continued abundant, with a large percentage of albumen. Cavernous sounds became audible in the right lung, the breathing became more and more difficult, and on the 29th of April he died, the diarrhœa continuing till the end.

*Autopsy, twenty-seven hours after death, by* Dr. EWART.—Abdomen: The peritoneum contained a pint and a half of pale opalescent fluid. The mucous membrane of the stomach was thickened and pasty and covered with glairy mucus. The upper portion of the intestine was normal; but from the lower third of the ileum downwards the gut was much ulcerated. No distinct tubercle was recognisable in connexion with the ulcerations. These were clearly of follicular origin, and they appeared to result more immediately from the rupture of purulent accumulations (similar to those commonly seen in follicular tonsillitis), some of which were as large as a split pea, or rather larger. The next step of the ulceration was characterised by a clean floor and a very sharp edge. Lastly, in some places, a third step was recognised—viz., that of shrinking and of induration. This was especially noticeable where several ulcers and pustules were arranged in a row in the transverse diameter of the ileum. The ascending and transverse colon were wormeaten by serpiginous and circular ulcers, situated so close to each other as to scarcely leave any healthy surface. Scattered ulcers were found as far as the rectum. The mesenteric glands were not much enlarged; one was calcified. The liver weighed 3 lb. 4 oz.; it showed fatty and fibroid changes to the naked eye, but isolated streaks and dots of deep brown appeared when iodine was applied. The spleen weighed 15 oz; it showed a few infarcts and some lardaceous changes. Pancreas: Bloodvessels distinctly lardaceous. The kidneys weighed 19 oz.; smooth, pale, with pink pyramids; the cortex showed opaque, yellowish-white streaks, within a semi-transparent basis. Iodine turned several of the Malpighian capsules brown. The kidney was a good specimen of the large white variety, combined with lardaceous disease. Heart: The mitral anterior flap had a small fibrinous vegetation on it. Lungs: Both pleuræ adherent; left anterior lobe occupied by a large vomica with fibrous wall; posterior lobe shrunk, contained tubercular mass in process of softening. The right upper lobe contained a large cavity full of grumous fluid, the rest of the lung being spongy and pervaded by tubercular nodules undergoing rapid softening. The mucous membrane of bronchi thickened. Bronchial glands: The subtracheal one was large, firm, red, and had a patch of pigmentation, but no tubercle. The larynx showed pinhole ulcerations and eroding of the vocal cords.

CASE 2.—William W——, aged sixteen, single, was admitted into the Brompton Hospital on May 11th, 1880, with a history of cough and expectoration for eighteen months, the latter occasionally streaked with blood. Diarrhœa had persisted for two months, and night sweats for a longer period. Great emaciation had resulted. On admission the cough and expectoration were moderate, the breath short on exertion, and the tongue red and irritable; the bowels relaxed twice daily. Pulse 104; temperature 99° F.; urine, sp. gr. 1015, acid, contains no albumen; weight 6 st. 8 lb. Physical signs: Dulness and cavernous sounds audible from the clavicle to the third rib on the right side; some dulness above the scapula. On May 19th the patient was seized with symptoms of acute nephritis; albumen appeared in the urine, and crepitation was audible at the bases of both lungs, in addition to the above physical signs. The acute symptoms passed off in ten days, the diarrhœa being somewhat less during their persistence; but albumen continued in the urine up to the patient's death. The diarrhœa returned at the end of June, and gradually increased, in spite of all

treatment, from three stools to ten stools daily, the medicines used being bismuth, bismuth and opium, sulphate of copper and opium, turpentine, enema of opium with acetate of lead, &c., with tannic acid, and also injections of linseed-tea and opium. With the exception of the last-named, which reduced the number of motions for a time to two daily, none of the above can be said to have in any way controlled the diarrhœa. Great pain in the umbilicus was noted at the beginning of August. The albumen towards the end of the patient's life amounted to seven-eighths of the tube, and at one time the urine after boiling was solid, and both œdema and ascites were present. The patient sank on August 30th.

*Autopsy, twenty-four hours after death.*—Abdomen contained a small amount of fluid. Intestines showed ulcerations in the jejunum and ileum, and in the large intestine. They were of two kinds—(1) small and round, resulting from simple softening and destruction of tissue; lower down in the intestine were (2) larger ones, possessing a rather thickened floor, in which miliary tubercles were present and visible on the peritoneal surface of the bowel. The neighbourhood of the ileo-cæcal valve was severely ulcerated, and the colon formed one continuous ulcer. From the ileum downwards both forms of ulcer occurred side by side. The liver was fatty and lardaceous, the spleen very lardaceous, the kidneys smooth and pale, with pink pyramids. The changes of chronic tubal nephritis were well marked. Malpighian capsules lardaceous, giving a strong iodine reaction. Heart normal, except tricuspid orifice somewhat dilated. Lungs: Right pleura adherent; right lung contained a large smooth-walled cavity, the size of an orange, and a smaller one lined with a glistening membrane. The lower lobe contained abundance of grey tubercle, either isolated or grouped; many of these last were in the process of softening. Left lung inflated, with some cicatrices at the apex. Bronchial glands enlarged, and contained miliary tubercles. Larynx and trachea: Extensive ulcerations occupied the whole tract from the tip of the epiglottis to the second division of the bronchi. The mucous membrane of the larynx was much thickened, and there was considerable hyperæmia of the trachea and bronchi. Ulcers were present in the pharynx, on the buccal surface of the epiglottis, on the base of the tongue, and the tonsils were hollowed out by caseation.

*Remarks.*—Both these cases are cited to illustrate the morbid anatomy of ulceration. Case 1 shows well the first steps in the process—the swelling of the glands, their suppuration, and caseation; Case 2 the different forms of ulcer, and the secondary infection which takes place in and around them. As in both instances renal disease existed to a considerable extent, and exercised a large influence on the symptoms, these cases cannot be considered good clinical examples of intestinal ulceration, but they are undoubtedly good ones of the morbid anatomy. It is seldom that so much destruction of the mucous membrane exists as occurred in Case 2, for here the pharynx, larynx, and bronchi, in addition to the intestines, were attacked. No history of syphilis could be traced in either.

CASE 3 is a good instance of perforation and peritonitis. Charles C——, aged nineteen, admitted October 7th, 1881, into Campbell ward, with the following history. He was attacked one year ago with pain in the left side, chiefly on taking breath, accompanied by diarrhœa and followed by pains in abdomen. Pains subsided, but were followed by cough, expectoration, night sweats, and wasting. When admitted his cough was moderate; expectoration scanty; appetite very bad; tongue red and irritable. Pain was complained of in the lower part of the abdomen. Bowels open three times a day. Pulse 80; temperature 103° F.; respiration 20. The physical signs showed the existence of a cavity at either apex. Bismuth and opium were given internally, and linseed poultices applied to the abdomen; but as the pain in the abdomen persisted, a blister two inches square was applied over the seat of pain. The diarrhœa ceased, and the cough became less frequent, but the pain persisted. On the 19th the pain had extended over the whole abdomen, and there was tenderness on pressure, chiefly over the right side. Tongue furred; bowels relaxed; hands and feet cold. Two days after he died suddenly.

*Autopsy.*—The abdomen contained abundant purulent fluid, encapsulated in the lower parts of the abdomen by fibrous adhesions. In the process of unravelling the gut, three perforations were detected in connexion with the encapsulated portions of the peritoneum. The intestines presented large ulcers from the middle of the jejunum to the end of the rectum, being most numerous and best marked in the ileum. No tubercle was visible in the peritoneal coat. The ulcers were devoid of raised edges and free from thickening, except where a few granulations were commencing; the ulcers appeared to enlarge by gradual implication of the neighbouring solitary glands. The mesenteric glands were swollen, some were suppurating and others caseous. The lungs showed both pleuræ strongly adherent at the apices. Both lower lobes were spongy and but slightly congested, but contained fresh translucent tubercles scattered through them. The upper lobes showed congestion of deep venous colour, interspersed with numerous nut-sized cavities containing yellow matter. The cavities, which had apparently been recently formed in the partially indurated tissue, were lined and stood in direct connexion with several funnel-shaped bronchi, and were situated at the periphery of the lungs. Various caseous masses, of apparently broncho-pneumonic origin, were noted in the upper lobes. No tubercle was detected in the upper lobes. The tissue intervening between the cavities under the action of spirit was deprived of its congestion and showed pigmentation and old fibrous changes. The bronchial glands were pigmented; the other organs were healthy.

*Remarks.*—This is a fair instance of extensive ulceration leading to peritonitis, partial probably at first, as shown by the encapsulated portions, but afterwards more general. The state of the lungs indicates that an attack of pleuro-pneumonia, probably of both lungs, led to induration of the tissue of the upper lobes, and consequent dilatation of the bronchi. These bronchectases extending and forming collections of muco-pus in the neighbourhood, the lymphatics became implicated, and hence the fresh tuberculosis. The difficult point to determine is when the intestines became implicated, and whether their lesions occurred first, and were the starting-point of the systemic infection, or whether the bronchectases were so. The history was not sufficiently distinct to decide this.

*(To be concluded.)*

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# ETIOLOGY AND CLINICAL BEARINGS OF THE GERM THEORY OF DISEASE.

BY DR. GEORGE HARLEY, F.R.S.

The Editor calls attention to the following

*Note by the Author.*—"Reformed speling: This paper is printed without encumbering its words with redundant, and consequently useles, duplicated consonants."

It must be understood that THE LANCET does not adopt the method, but simply complies with the request of Dr. Harley.

## CHAPTER II.

*Efects of Animal Germs and Germ-spawn artificialy introduced into the Bodies of Healthy Animals.*

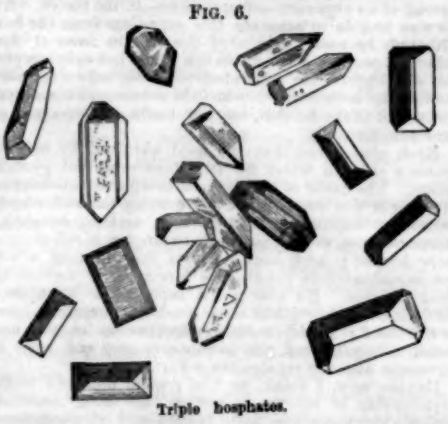
THE first experiment made with what I consider animal germs was the folowing:—

(F) A quantity of normal healthy gastric juice was withdrawn from a healthy dog's stomach through a fistulous opening. It was set aside in a smal-neck botle until it had not only become putrid, but strongly alkaline, and ful of living animal organisms;[1] though, strange to say, not a single spore nor filament of a fungus was to be detected in it by the aid of the microscope. An ounce of it, without any preparation whatever, was then slowly injected into the left femoral vein of a large dog. On the folowing day it apeared out of sorts, and refused its food. It rapidly recovered, however, and in four days was aparently perfectly wel. This result surprised me, seeing the deleterious results I had seen folow the injection of putrid blood, and even of blood directly withdrawn from the vesels of starved living animals, and it led me to try to ascertain if the deleterious efects of putrid animal maters were proportionate in any way to what by our senses we would consider to be relative degrees

[1] Gastric juice contains a special ferment of its own caled pepsin, which, when introduced into milk, induces lactic acid fermentation; whereas, when acting in its own normal secretion—gastric juice—it sets up an alkaline amoniacal fermentation, similar in its results, though not in its mode of action, to the alkaline-amoniacal fermentation of normal acid urine.

of abomination. With this object in view the most disgusting looking and smeling animal liquid was sought for, and it was supposed to be discovered in the macerating trough of the dissecting-room, which had not been emptied for years. On placing a drop of the filthy-smeling alkaline fluid from the macerating trough under the microscope it was found to literaly swarm with actively-moving Brownian granules, vibriones, and germ-spawn. It also contained numbers of crystals of triple

FIG. 6.



Triple hosphates.

phosphates. An ounce of this was injected very slowly into the femoral vein of a dog. It seemingly caused it not the slightest imediate inconvenience, as it at once troted of to its food, and began eating it as if nothing had been done to it. Within twenty hours afterwards, however, it was found dead. The deadly efects of this ofensive animal fluid being therefore undoubted, I resolved to try if the germ-spawn contained in the liquid would alone be suficient to kil an animal. Litle thinking that the result I would obtain would give a solution to the aparently mysterious fact, long afterwards noticed by other observers, that splenic fever (which is due to the presence of bacili in the circulation) could be induced in healthy animals by inoculating them with blood of infected animals when no bacili were visible in it, and yet in the course of time bacili would develop and be found in the blood of the animals so inoculated. This I explain by saying that, although there were no bacili in the blood inoculated, it nevertheles contained bacili germ-spawn.

(G) To test the value of my germ-spawn theory I proceeded as folows:—

A quantity of the putrid liquid from the macerating trough was carefuly filtered through filtering-paper which only alowed the minute—almost invisible—germ-spawn and the soluble materials in the liquid to pas through it. The vibriones and Brownian granules, together with al the solid substances it contained, were retained behind on the filter.[2] An ounce of the thus prepared foul-smeling water, supposed to be loaded with germ-spawn, was slowly injected into the left jugular vein of a ful-grown terier dog. The imediate efects of the operation were simply *nil*; but they would not have remained so long, for next evening—that is to say, within eighteen hours after the injection had been made, the colege servant on going to seek the dog found it very il; so il that he at once took it up in his arms and brought it into the laboratory. On my arival there at 10 A.M. I found the animal in an almost comatose state. Its respiration was only 7 per minute. Its femoral artery was nearly pulseles. Its skin was cold, and it not only could not stand on its legs, but it had scarcely power to move them. A smal quantity of blood was withdrawn and examined under the microscope, but nothing abnormal was found in it. Some of it was put aside to crystalise, on acount of my having noticed that rat's blood under similar conditions crystalised unusualy readily; but no crystals whatever formed in it. On the folowing morning the animal was found not only dead, but stif. Strange to say, notwithstanding this, its body smelt most ofensively, and yet the rigor mortis proved that the foul odor was not due to the result of ordinary tisue decomposition.

Extravasations of blood had taken place under the skin and into the muscles, especialy about the animal's neck in the neighborhood of the wounds. The duodenum was found filed with sanguinolent mucus, and its mucous membrane was uniformly red and congested-looking, with one or two points of extravasation. This is a point to be noted from its having a particular bearing on the cause of the black vomit and tary dejections met with in cases of hepatic disease—where there is a complete suspension of the biliary secretion—and hæmorhages take place into the digestive canal. It has an equaly important bearing on the pathology of putrid fevers.

(H) Being satisfied by the results of these and other experiments, of a precisely similar character, of the deadly efects not only of animal micro-organisms, but of their germ-spawn when directly introduced into the circulation of a healthy animal, I determined to ascertain if this same chain of pathological results could be induced by the local aplication of the same abnormal living elements to healthy living tisues. In order to insure that the inoculation, if it took place at al, should be the result of thorough contact, I injected half an ounce of the same liquid as was used in the preceding experiment, under the skin of the back of a perfectly healthy dog. No imediate results folowed upon the operation. On the folowing day it apeared perfectly wel, with the exception of a slight pufines being observed under the skin at the seat of the injection. But even that apeared to give it but litle inconvenience, as it alowed the part to be gently manipulated without manifesting any symptoms of pain. In three days even this had disapeared, and the dog seemed perfectly wel. The slight results here obtained (as I knew from the previous experiments that the liquid was not inocuous) could only arise from one of two things—either that the quantity employed was too smal, or that the dog was unusualy insusceptible to its efects. With the view of ascertaining which of these ideas was most probably the corect one, I proceeded to increase, not only the actual quantity of germ-spawn, but also the area of the healthy tisues with which it was brought into contact, by injecting an ounce—that is to say, double the quantity of fluid—under the skin of the back of another aparently equaly healthy dog of the same species, and almost of the same size. As in the former case, the operation at first seemed to be perfectly harmles. For not the slightest inconvenience did it apear to cause the dog; a very diferent thing from what would have ocured had a dead alkaloid, or a dead mineral poison, been introduced in suficient quantity to produce deleterious results, as this was, as the sequel will show. Nevertheles the germs were actively at work. They had found a suitable habitat, and they evidently lost no time in seting about the fulfilment of their mision, which was to hatch, grow, and multiply at the expense of the healthy tisues of their involuntary host. The disintegration of its tisues caused iritation. The iritation induced morbid action, and what was its result? Nothing more nor les than that within the brief space of twenty-four hours a soft pufy sweling ocupied the seat of the injection. Within forty-eight it asumed the form of a circumscribed œdematous tumor.[3] On the fourth day an ulcer of the size of a sixpence had formed at the seat of puncture, while al around it, over a space of about the diameter of a florin, the skin had become perfectly denuded of its hair, which strongly reminded me of what hapens in the disease known as molusсum contagiosum, in which tumors form and the hair fals of, not improbably from a similar kind of cause—namely, disease germs finding their way into the hair-folicles. The dog's general health apearing to be unafected, and wishing to make a careful inspection of the parts round the seat of the injection, I kiled it by pithing, and the folowing is the result of the post-mortem examination. The ulcer at the seat of puncture was found to comunicate directly with a large (three inches in diameter) subcutaneous cavity, caused aparently by the fluid having detached the celular tisue from the fascia beneath. But the wals of the cavity were free both from any apearance of putridity and any great inflamatory action. At least no pus was visible, and

[2] Although ordinary white chemical filtering-paper retains the germs and only alows the minute germ-spawn to pas through, it is easy enough to devise a form of filter, as Pasteur did, which alows neither germs nor germ-spawn to pas through, so that if it is desired to operate on fluids devoid of al taint of germ-spawn a coton-wool or other kind of filter from that of mere filter-paper must be had recourse to.

[3] Lukomsky got similar results—namely, phlegmonous subcutaneous inflamations—by injecting under the skin of rabits erysipelatous fluids. (See Koch, 1880, p. 10.)

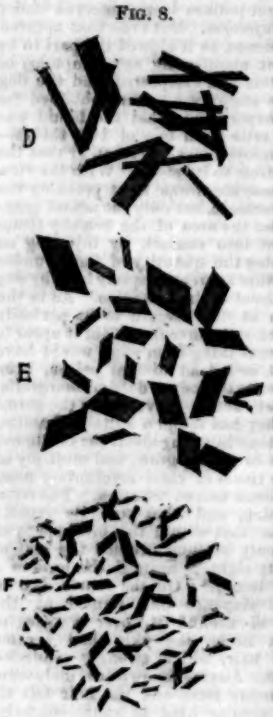
only a red layer of serous exudation found, in which was seen, by the aid of the microscope, innumerable granular nucleated large exudation corpuscles, the nuclei being rendered very distinct by the adition of acetic acid (see Fig. 5). Beyond that, and that the blood cels showed in this case a marked tendency to serated edges, nothing remarkable was noticed. Having obtained a result which to my mind clearly proved that quantity as wel as quality was a factor not to be omited in calculating the value of the pathological efects of germs in these experiments, I resolved to operate on smaler animals, and with this view tame Japanese rats were employed in the next experiments.

FIG. 7.

Serated blood cels.

(J) Under the skin of the back of a tame black and white rat was injected a fluid drachm of the afore-mentioned fetid water from the dissecting-room macerating trough, swarming with animal germ-spawn. Next morning—that is to say within twelve hours,—the rat was found dead and stif with rigor mortis. Round the seat of puncture the skin was not only congested, but somewhat ædematous. The blood was coagulated, and, what was more to the point, when examined under the microscope it was found to be ful of wel-formed crystals, some almost colorles, some pink. Rat's blood is particularly prone to crystalise, especialy under many diferent pathological conditions. But this rat's blood was exceptionaly so, for it may be said to have become literaly crawful of them the moment a drop of water was aded to it. In fact, the whole field of the microscope became covered with large prismatic flat hand and needle-shaped crystals, which imediately disolved on the adition of weak hydrochloric acid. When a litle acetic acid, solution of potash, or alcohol was aded before the adition of the water no crystals whatever were found. This strongly reminds me of the fact recorded by Charcot and Robin in the Comptes Rendus of the Société de Biologie, 1853, that the long prismatic crystals met with in the blood in the cases of leucocythæmia, though insoluble in water, are nevertheles soluble in acid and alkalies. The solubility of these crystals both in alkalies and acids met with in rat's and human blood, coupled with their insolubility in water, lead me to suspect that they are of a cholesterin nature, and simply tinted with the coloring mater of the blood. Besides these prismatic flat hand and needle-shaped crystals there were also in this rat's blood a few much reder, colored stelate ones, such as I had never before seen in rat's or in any other animal's blood, notwithstanding my familiarity with al kinds of blood crystals (see page 49 of the second edition of my "Histological Demonstrations"). The stelate form put me more in mind of the rare star-shaped uric acid crystals of human urine than anything else. The result of this experiment was so unusual that I imediately repeated it on another brother rat, and that, too, with perfectly identical results in every single particular. I have only to ad that in my notes no mention is made of anything else abnormal having been observed in the blood of either rat.

FIG. 8.




Blood crystals.

In researches published in 1880, we are told that Koch found that the injection of putrid fluids into rabits led on one ocasion to the formation of a spreading abscess. The wals of this abscess were found to be ful of micrococci; and these micrococci, inoculated on another animal, again produced the same spreading supuration. The blood of these animals produced the disease in mice, and at the same time he got in some cases a peculiar progresive destruction of the tisues in the mice, and he found this was due to the spread of an organism—streptococcus—in the tisues. At first he was unable to separate this organism from the bacilus, although he easily separated the bacilus from it, for the minutest portion of the fluids contained not only streptococci, but also bacili. He separated them by injecting material containing both forms into a field mouse. This animal is insensible to the bacilus, but not to the streptococcus, which grows in it readily.

Koch also found that the fluid obtained by macerating mouse's skin in water for two days produced pyæmia in rabits. The cause of this pyæmia being a minute micrococcus growing in the blood-vesels, and causing the red corpuscles to adhere together. In this way, emboli, consisting of masses of these organisms, with entangled blood-corpuscles, were formed; and Koch sugests that in man a similar proces may explain the obscure formation of emboli in the smal arteries. He also got a septicæmia in rabits, and found it to be dependent on a smal oval organism growing in the blood; while, lastly, erysipelas was on one ocasion found to be produced, and in this case long and large bacili were seen over the erysipelatous part.

Having now, I think, by the results obtained from the experiments of others as wel as my own, conclusively shown that there are both benign and virulent forms of microscopic organisms, and that the aparently benign may be made to produce virulent pathological efects, not only by altering the soil in which they grow and the materials upon which they feed, but also, as I shal presently show, by merely transfering them into parts of the body where they are abnormal, and find a suitable habitat in their abnormal situation for development, reproduction, and multiplication,—I shal proceed in the next chapter to clasify what, acording to the present state of our knowledge, I think, may be regarded as the distinct forms of germs which are capable of producing specific pathological results in the human body. I am constrained to do so, as it apears to me, as it must have done to many others, that some sort of clasification of disease germs has become absolutely esential, from the fact that many writers include under the general terms of bacteria and micrococci several distinctly diferent morphological germs—to wit, the spheroidal micrococci, the sausage-shaped bacteria, and the rod-like bacili. So that in reading their papers it is imposible to know which form of germs they are realy speaking of. No doubt we are not as yet in a position to say—for reasons which I shal subsequently give—which are and which are not distinct species of germs; but, as we shal see in the next chapter, we already know that such distinctly diferent morphological germs as micrococci, bacteria, and bacili give rise to distinctly diferent and definite pathological results, both in the human subject and in animals into which they are artificialy inoculated. I even live in the hope that there may yet be discovered a distinct microscopic organism for each distinct contagious and infectious disease, which appears to me to be rendered al the more probable by the already discovered fact that diferent species of animals have diferent degrees of susceptibility to diferent forms of germs. Even a field mouse resists the atack of a bacilus to which a house mouse sucumbs. I therefore think that the time has arived when it has become imperatively necesary for us to make at least some tentative form of arbitrary clasification of the disease germs with which we are already acquainted, so I propose to give a table and figures of them in my next chapter.

*(To be continued.)*

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THE surgeons of the Poplar Hospital have given testimony to the value of the services of the St. John Ambulance Association. "We have noticed," say Messrs. Brownfield, Corner, and Bowkett, "that since the formation of classes at the Docks for aid to the injured, the persons brought to the hospital suffering from accidents have been saved much pain before being admitted, owing to the preliminary treatment they have received at the hands of members of the Association."

NOTES ON THE

# SYSTEMATIC TREATMENT OF NERVE PROSTRATION AND HYSTERIA CONNECTED WITH UTERINE DISEASE.

By W. S. PLAYFAIR, M.D., F.R.C.P.,

PROFESSOR OF OBSTETRIC MEDICINE IN KING'S COLLEGE AND PHYSICIAN FOR THE DISEASES OF WOMEN AND CHILDREN TO KING'S COLLEGE HOSPITAL.

*(Concluded from page 859.)*

CASE 2. — In May, 1880, I saw with Dr. Julius of Hastings an unmarried lady, aged thirty-one. Her history was that she had been in fairly good health until five years ago, when, during her mother's illness, she overtaxed her strength in nursing, since which time she had been a constant invalid, suffering from backache, bearing-down, inability to walk, disordered menstruation, and the usual train of uterine symptoms. She used to get a little better on going to the seaside, but soon became ill again, and in October, 1879, she was completely laid up. The least standing or walking brought on severe pain in her back and side, and she gave up the attempt, and had since remained entirely confined to her bed or sofa, suffering from constant nausea, complete loss of appetite, and depending on chloral and morphia for relief. Many efforts had been made to break her of this habit, but in vain. Her medical attendant had recognised the existence of a retroflexion, but no pessary remained *in situ* for more than a day or so, and he suspected that she herself pulled them out. I was unable to do more than confirm the diagnosis that had been made as to her local condition, but the pessary I introduced shared the fate of its predecessors, and she remained in the same condition—in no way benefited by my visit. Things going on from bad to worse, Dr. Julius sent her to London for treatment in the early part of December. I now determined to try the effect of the method I am discussing, of which I knew nothing when I first saw her. It was commenced on Dec. 11th, and everything went on most favourably. A week after it was begun, when her attention was fully occupied with the diet, massage, &c., I introduced a stem pessary, being tempted to try this instrument, which I rarely use, by the knowledge that she was at perfect rest, and that no form of Hodge had previously been retained. I do not think she ever knew she had it, and it remained *in situ* for a month, when I removed it and inserted a Hodge, which was thenceforth kept in without any trouble. I may say that I do not think the retroflexion had much to do with her symptoms, except, doubtless, at the commencement of her illness, and she probably would have done quite as well without any local treatment. She rapidly gained flesh and strength, and very soon I entirely stopped both chloral and morphia, and she never seemed to miss them. On Dec. 11th, when the treatment was commenced, she weighed 5 st. 9 lb. On Jan. 20th she weighed 7 st. On Jan. 25th she walked downstairs, and went out for a drive, and from that time she went out twice daily. She complained of no pain of any kind, and, although she wore a Hodge, she did not seem to have any uterine symptoms. On Feb. 1st she went to the seaside, looking rosy, fat, and healthy, and has since returned to her home in the country, where she remains perfectly strong and well. A few days ago she came to town, a long railway journey, on purpose to announce to me her approaching marriage.

CASE 3.—My third case differed in many respects from the first two, since the patient was not in the state of extreme nervous prostration from which the others suffered. She was not, like them, excessively emaciated, and she was able to consume a fair amount of nourishment. It was, indeed, a case of pure hysteria of an aggravated form, and its cure was, I believe, chiefly due to isolation, and to moral pressure brought to bear on the patient. I commenced its treatment with considerable hesitation, and relate it chiefly with the view of showing how much such cases are influenced by a morbid craving for sympathy, and benefited when this is not within their reach.

Mrs. ——, aged twenty-six, was sent to me from one of our colonies with the following history. She had had bad labours, followed by bearing-down, backache, and other uterine symptoms, and had been subjected by various medical men to much local treatment, including the use of pessaries, constant cauterisation, and the like, most of which had, I believe, a very prejudicial effect on her. I may say that I was unable to detect any uterine disease requiring topical treatment, although such may no doubt have previously existed. I extract from the full report sent to me by her last medical attendant the following curious account of the nervous phenomena she exhibited. "Her lower limbs are partially paralysed, or, at all events, not under the proper control of her will. She is able to walk a short distance with a very uncertain gait, but the knees, after a few paces, suddenly give way, and she falls to the ground. When sitting quietly her hands are frequently affected with slight spasms, and her lips and eyelids are subject to occasional nervous twitches. Each menstrual period is preceded by violent hysterical attacks. In these seizures the body is violently convulsed, and the exhaustion which has followed has been so marked that I have occasionally failed to detect the pulse. These attacks are also brought on at other than the menstrual periods by any slight unusual exertion." When the patient presented herself in my consulting-room, although supported by her husband, she fell down on the floor six times, in the manner above described, in walking the length of the room, and this was the only way, I was informed, that she had been able to walk for some two years. She was very pale and anæmic, but fairly well nourished. I soon satisfied myself of the hysterical character of these symptoms, but had great difficulty in inducing the patient to submit to my proposed treatment, especially as to separation from her husband, who had got into the way of constantly nursing and tending her, with a result most injurious to her health. Within twenty-four hours of the treatment being commenced she had a violent outburst of hysterical excitement, which, however, soon subsided on my proposing to dismiss the nurse and give up charge of the case. For ten days everything went on well, food was taken freely, and there was a perceptible increase in size and weight. When, however, faradisation was commenced, it led to a second paroxysm of excitement, the patient writing piteous letters to her husband declaring that she was going mad, and that the agony produced by the electricity was perfectly unbearable. Under my advice he had the good sense to write and tell her that I was perfectly prepared to stop the treatment the instant she expressed a desire that it should be so, but that, as it had been begun, he would not take on himself the responsibility of doing so, and that the decision must be made by her. I then informed the patient that as the object of the electricity was to give strength to her weakened limbs, the moment I was satisfied, by her walking downstairs without falling, that the desired result had been gained, it would, as a matter of course, be stopped. This lady was lodging rather more than a mile from my house, and, to my very great surprise, the next morning after the scene I have narrated, she was shown into my consulting-room, having of her own free will got up and dressed, sent for her husband, and walked without assistance the whole way without once falling. She has since left town apparently quite cured, and I heard from her a few days ago that she was about to start for a prolonged continental tour.

It will be obvious that in this case the massage, diet, and electricity had only a secondary effect as part of a whole that was intensely disagreeable to the patient. Clearly the main factor was the removal of injudicious sympathy, but the case seems to me worthy of record as showing the extreme value of a determined effort to break through habits of a morbid character, and the importance of trying to make a weakened will exert itself.

CASE 4.—This case is a typical instance of the kind of nerve debility and exhaustion that may be associated with old-standing uterine disease. It was placed under my care by Dr. George Kidd of Dublin, whose account of the case I prefer giving to my own, having his permission to do so. She had long been under his care and that of Dr. McClintock, and the fact that she had been treated by obstetricians so eminent is of itself sufficient proof that all had been done for her that the most advanced science could suggest. I may premise that the patient was a single lady forty-five years of age, that she had never been strong, but had not been completely laid up until 1872, since which time she had been confined to her bed or couch. Dr. Kidd wrote to me as follows:—"Miss —— has been a complete invalid for many years. She suffers

from excessive pain during menstruation, and from constant pain in the left side and back, extending down the left thigh and leg, with loss of muscular power in that side. Some years ago I discovered a fibrous tumour growing from the left side of the uterus, subperitoneal, and with a pedicle long enough to allow of free movements. Mr. Spencer Wells cut down on this tumour, and removed it, but without removing either the menstrual pain or the pain in the side. The tumour has grown again in the same situation, and is nearly as large as before, probably one inch and a half in diameter. All the mucous membranes are delicate, and she suffers occasionally from vaginitis and endometritis, and also much from piles and prolapse of the rectum. Miss —— is of a highly nervous and hyperæsthetic temperament, which is probably exaggerated by the isolated life she has been leading, and by the frequent use of hypodermic injections of morphia to relieve pain." I may supplement this account with an extract from a letter from the patient herself, which graphically describes the state of her nervous system. "I can hardly tell you what a deep sufferer and how prostrate I have been. For years I have led a completely sedentary life, always lying; it is the position I am easiest in. My back aches sorely. I am peculiarly sensitive to pain. I spend very restless nights. The pain is often then very bad. I have always a sense of great weariness." I found this lady, as might have been anticipated, pale, anæmic, very wasted, and with her nutrition at the lowest ebb. She had no appetite, and consumed hardly any food, a snipe or the wing of a pigeon constituting, with half a cupful of bread-and-milk, all she took in twenty-four hours. Moreover, she had the morphia crave strongly developed, her maid giving her hypodermic injections of four minims of the pharmacopœial solution ten times, sometimes much oftener, daily, equivalent at the least to six grains of solid morphia; besides which she took draughts of chloral and morphia twice daily. I found the fibroid as described by Dr. Kidd, apparently growing from the posterior wall of the uterus, supported by a Hodge, which seemed to give her some comfort. It will be admitted that here was a case sufficiently bad to test the value of the treatment thoroughly, and, inasmuch as there was a distinct uterine lesion which could not be removed, I undertook it with considerable misgiving. I was, however, encouraged to do so on reflecting that there was nothing *per se* in such a fibroid to cause much suffering, many women having similar outgrowths which in no way affect them, and I hoped that if I could succeed in improving the vital energies and in breaking off the vicious habit of morphia taking, much good might be done. I accordingly isolated her with a nurse, having sent away her maid who had attended her during all her illness. During the first fortnight, or rather more, things went on very badly. It was reported to me that it was quite impossible to administer to her the food that was ordered, the stomach being unable to bear it; the sleeplessness was aggravated rather than lessened, and she was in the lowest state of mental depression, constantly crying and declaring that she could not possibly bear the treatment. On trying to stop the hypodermic injections, violent vomiting supervened, which lasted the whole of one night, but which was immediately relieved when the morphia was again given. At this juncture I was nearly in as great despondency as the patient, and feared that the treatment must be abandoned. On reflecting on a result so different from that which I had observed in other cases, I came to the conclusion that the fault lay chiefly with the nurse, who, although an amiable and willing woman, had neither the intelligence nor the tact necessary for such a case, and who yielded in everything to the wishes and fancies of the patient. I therefore determined to change her, and secured the services of the nurse who had managed my first case, on whose judgment and skill I could thoroughly rely. From that moment everything went on as well as could be wished; nothing more was heard of the food disagreeing, and within ten days my patient was taking three full meals a day, besides her milk and soup, with relish and appetite. She slept all night long, and began rapidly to put on flesh. As a matter of fact, I believe that the first nurse, who had no experience as a masseuse, entirely mismanaged the shampooing, giving practically no muscular exercise, and, as a matter of course, the increased amount of food could not be assimilated. It was quite surprising to note how at the end of a week, with her new nurse, the patient had lost her depression, and had become comparatively bright and very hopeful. The hypodermic injections were gradually lessened in number and quantity; in a fortnight all sedatives were entirely discontinued, and nothing of the kind has been since touched, nor has she any craving for them. It was very curious to watch this patient's progress. From leading a life of complete isolation for so many years she had fallen into a chronic state of dread and alarm, and could not at first bear the idea of meeting any stranger, and was, indeed, somewhat like a prisoner brought into the world after a lengthy imprisonment. Every step in advance was a matter of apprehension to her, and it required much encouragement and persuasion to induce her first to leave her room and walk downstairs, then to go out, and so on; but by degrees all difficulties were overcome. I eventually induced her to remove into one of our largest hotels for the express purpose of bringing her into contact with the life and bustle of such an establishment, and soon she was able to sit in the public room, to dine at the table-d'hôte, to go out for daily drives, and to go to church. She now looks twenty years younger than when the treatment was commenced, and her friends declare her to be almost unrecognisable, which is indeed the fact. For the last month of her treatment she never mentioned her uterine symptoms, and I purposely refrained from inquiring about them. She has now left, accompanied only by a maid, for a trip across the Atlantic, with the object of visiting the Falls of Niagara. Perhaps I cannot better contrast this patient's present and past condition than by again quoting from a letter of her own written as she was leaving town. "I find it impossible to get people to understand the treatment I have lately undergone, but the results have been quite marvellous and speak for themselves. My brother, whom I saw for the first time yesterday, said I am a miracle. I *really* do not know myself, and, although I sometimes have a frightened feeling, I have *much* more self-control, and the aspects of my life have completely changed for me." In a patient of this class it is, perhaps, too much to hope that when left to herself there will be no relapse—time alone can show; but so far at least, the treatment has been successful beyond my utmost hopes and anticipations.

I trust that the cases I have narrated may suffice to show that, by systematic treatment on rational principles, a class of case hitherto found most intractable is really capable of being very satisfactorily dealt with. Of course, it is hopeless to imagine that every case of the kind will be found to improve as much as those I have described, since there must of necessity be many factors in operation, the action of which can never be determined beforehand, which may materially interfere with the desired results. If, moreover, the medical man, and still more the nurse, cannot succeed in obtaining a certain moral influence over the patient, and in inspiring the confidence which is essential, failure will almost necessarily follow. In Case 4 the influence of an inefficient nurse was very distinctly shown, and I should be inclined to say that a really good nurse, of sufficient intelligence to understand thoroughly what is required, and with the necessary admixture of tact, kindness, and firmness, is by far the most important element for success, and it is needless to say that nurses of this stamp are not readily found. Short of complete cure, very material improvement in the condition of such cases may be confidently expected; and, at the worst, even if failure follows, no bad results can possibly attend the adoption of this plan. My own conviction is that Dr. Weir Mitchell has made a most important contribution to practical medicine by the introduction of the method I have been describing, which I trust the perusal of these notes may induce many to try. Beyond doubt the treatment is very troublesome, and requires much care and patience; but in cases so distressing no trouble should be considered a bar to its adoption.

George-street, Hanover-square, W.

## BEQUESTS AND DONATIONS TO MEDICAL CHARITIES.

Miss M. A. H. Henery bequeathed £500 each to the Royal Free Hospital, the Middlesex Hospital, the Brompton Consumption Hospital, University College Hospital, and the Hospital for Paralysis, Putney. The Sea-bathing Infirmary, Margate, receives £50 under the will of the late Mr. S. Hindley of Tunbridge Wells. The Grocers' Company has given £200 to St. George's Hospital. Miss Georgina F. Downie, of Appin, bequeathed £500 each to the Edinburgh Royal Infirmary, and the Royal Infirmary and the Western Infirmary, Glasgow.

ON A CASE OF

## BELLADONNA POISONING TREATED WITH PILOCARPIN.

BY NICHOLAS GRATTAN, L.R.C.P. EDIN.,
SURGEON TO THE COUNTY AND CITY OF CORK HOSPITAL FOR WOMEN AND CHILDREN.

THE subject of the "antagonism of therapeutic agents" has of late been brought so prominently before the profession that the notes of the following case will probably be read with interest.

Mrs. M——, aged forty-two, drank by mistake a wineglassful of a liniment at 9 P.M. on Dec. 23rd, 1880. Fortunately for her, she had had a hearty dinner about four hours before. She discovered her mistake, and took two teaspoonfuls of mustard in water, with no effect. She walked a short distance into town, purchased an emetic, which she drank, returned home, felt dizzy, her sight going, shadows before her eyes, lost the power of speech, became greatly excited, had convulsions, and vomited slightly, and then lapsed into profound stupor. At 10.45 P.M. I saw her for the first time. Her pupils were widely dilated, not acted on by light; her face was swollen, and of a bluish colour, more especially her lower lip, the mucous membrane of which appeared as if it had been blistered; the pulse was imperceptible in one wrist, almost so in the other; respiration 25. I introduced a stomach-tube, pumped in mustard emetic, and washed out the stomach thoroughly. In half an hour she had vomited freely, sensibility was slightly returning, but she soon lapsed into complete stupor. From this time until 2 A.M. she was treated with cold affusion to the head, and flagellation with a wet towel over the heart. At 2 A.M. I learned from my friend Dr. Harvey (for whom I had sent, as he had ordered the liniment for Mrs. M—— at the dispensary) that she had taken ℥ii. ℥ii. of lin. belladon. (B. P.). There being no decided improvement in her condition I determined to try pilocarpin; this I procured at 3 A.M. and subcutaneously injected one-fifth of a grain every fifteen minutes. After the third dose there was a marked improvement; consciousness was evidently returning, her countenance became more natural, her pulse could be distinctly felt, and she was able to raise her hands to her mouth and throat. At 3.45 I administered a fourth dose of one-fifth of a grain; this had a decided effect on both pupils, which began to contract under the influence of light; she was evidently fast recovering; had a drink of tea and milk and was able to speak. At 4.30 A.M. she was so far recovered that I thought it safe to leave her, desiring her friends to send for me should she relapse into her former state. When I saw her again at 10 A.M. she had had a refreshing sleep, from which she awoke saying that she did not remember anything that had occurred. She had had in all four-fifths of a grain of pilocarpin; it appeared to act as a direct antidote to the belladonna and did not cause the least perspiration. She continued to feel slight dizziness for two days with dilated pupils, but was in every other respect quite well. I gave her half a drachm of tincture of opium each night. The third day she had perfectly recovered.

Cork.

## ON THE CAUSATION OF ALOPECIA AREATA, AND ITS OCCASIONAL CO-EXISTENCE WITH TINEA TONSURANS.

BY JOHN COLLIER, M.D.

DR. LIVEING in one of his works remarks that tinea tonsurans sometimes insidiously produces a smooth, bald patch, and that after a time the hair may grow again on such a patch. In such a case a microscopical examination would probably give negative results, as the disease would have completely exhausted itself. The non-discovery of cryptogams would be no proof that they might not have existed previously, and unnoticed have produced this baldness. Ringworm presenting the usual features might also be present. Now, whilst one observer, taking the *history* of the case as a guide, would describe it as one of tinea tonsurans, another might bring it forward as a curious example of the co-existence of that disease with alopecia areata. But let it be granted that sometimes these two affections do co-exist (and no doubt they do), is there anything inexplicably mysterious in such an occurrence? Suppose a boy who is afflicted with alopecia areata attends a school where there are several of his companions who are affected with ringworm; perchance he wears one of their caps, and thus by contagion the disease is communicated to him. This would therefore be an example of these two diseases occurring together in the same person; yet I apprehend there would not be the slightest etiological significance in such a fact. It cannot be too strongly enforced that there is no connexion whatever between these two affections. Moreover, it is not a very uncommon thing for two skin diseases to exist in the same subject. Cases have been recorded of the co-existence of favus and tinea circinata, of scabies and tinea tonsurans, of chloasma and acne, and even of varicella and psoriasis. Alopecia areata may be regarded as a cutaneous neurosis. Most dermatologists are agreed that it is originated by a lesion of nerve function which takes the form of a disturbance of nutrition, of the formation and reproduction, of hair. Several considerations appear to support this view; thus we often have tingling pain before the baldness appears, and afterwards marked loss of sensation in the patch. Under the microscope the diseased hairs will be seen to be simply atrophied and of a lighter tint than the natural hair. Several cases have also been recorded by Mr. Erasmus Wilson, in which this affection was caused by severe neuralgia. In such cases a paralytic condition of the trophic fibres of the sympathetic is produced; the exhausted nerve yields up its power, to a greater or less extent, and refuses to perform its function. The following examples of alopecia areata, which I have recently met with, will prove interesting and suggestive.

CASE 1.—H. H——, a stalwart young fellow, last August received a blow from a cricket-ball on the right temporal region. After his recovery from this accident a patch of alopecia areata made its appearance about one inch above the seat of the blow. Subsequently the hair grew again.

CASE 2.—R——, a schoolboy, aged twelve years, received, during a fistic encounter, a swinging "right-hander" over the left ear. This brought on intense neuralgia, from which he suffered for a fortnight, when one morning he discovered that he had not only lost the neuralgia, but also some of his hair. A large patch of alopecia areata was formed on the left parietal region. After being treated for about a month the hair was reproduced, but, curious to relate, it was of a grey colour, and presented a marked contrast to that which surrounded it.

CASE 3.—T. A——, aged nineteen years, presented a typical picture of Addison's disease. The mulatto pigmentation of the skin, the weak action of the heart, the vomiting and diarrhœa, nervous depression and intense asthenia, rendered the diagnosis only too certain. A post-mortem examination was not allowed. The interesting point about this case was that at the commencement of the disease two extensive patches of alopecia areata appeared on the occiput. Only a short-lived lanugo was produced on these. Dr. M'Call Anderson has pointed out that this affection not unfrequently exists in Addison's disease. This is what one would expect, as it is now generally considered that the latter affection is caused by a lesion of the sympathetic nervous system.

CASE 4.—F——, aged forty-five years, was suddenly reduced, by unsuccessful speculation, from a state of comparative affluence to one of poverty. On recovering from the shock, he found that the right ear was hyper-sensitive to sound. After a short time several patches of alopecia areata were noticed; these speedily enlarged, and very soon complete baldness was the result. The eyebrows also disappeared. Active treatment produced negative results.

These four cases present gradations in severity; for in the first case the hair grew again; in the second it was reproduced, but was of a different colour; in the third a few fine hairs appeared; while in the last example there will be everlasting alopecia. If the cause of the affection be local rather than general, there is a better chance for the growth of new hair. We learn from Goltz's well-known "tapping" experiments (vide Ziemssen's Cyclopædia) how comparatively slight mechanical irritation of the abdominal viscera suffices to excite a disturbance of the functions of the abdominal nerves and ganglia; therefore it is not surprising that, in Cases 1 and 2, a blow should cause a lesion of the trophic filaments of the sympathetic which supply the scalp. It is not improbable that, if we inquired into the history of every case of alopecia areata, we should find the cause to be essentially nervous in origin.

Lincoln.

# A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

**Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv, Proœmium.**

## KING'S COLLEGE HOSPITAL.

ON Saturday last among the cases operated on were two of special interest. The first was the removal by Mr. John Wood of the left scapula from a young girl from whom the upper limb had been removed five months previously for sarcoma. This is the third time Mr. Wood has removed the scapula; his first case was recorded in "Mirror of Hospital Practice," Feb. 27th, 1875. The next case was that of an excision of the upper end of the right femur from a man who had suffered from hip disease for many years. After removal of the great trochanter a fragment of dead bone, the size of a filbert, and evidently the remains of the head of the femur, was discovered embedded in the acetabulum, and removed with an elevator. In some of its clinical and pathological features this case bore some resemblance to one under the care of Mr. Smith last year, and recorded in the "Mirror of Hospital Practice" on January 8th last. In that instance a large piece of dead bone was found during excision of an elbow-joint to have been the cause of inflammation and suppuration in the joint after fracture of the internal condyle.

### SARCOMA OF THE SCAPULA; REMOVAL.

(Under the care of Mr. JOHN WOOD.)

For the early notes of this case we are indebted to Mr. Hugh Smith, surgical registrar.

The patient, Sarah Ann F——, aged seventeen, was originally admitted into King's College Hospital, under the care of Mr. John Wood, on January 9th, 1881. She was then well nourished, but spare, and somewhat pallid. Six months before admission she felt pain in the left shoulder; three months later swelling was noticed in the same place. On admission the outer and anterior aspects of the upper fourth of the left humerus were seen to be the seat of a rounded tumour. The skin over it was tense, the superficial veins were enlarged, and the mass felt hard, but slightly elastic on pressure. On January 15th amputation of the left arm at the shoulder-joint was performed under Listerian antiseptic precautions. Some processes of the tumour extended into the supra-spinatus and infra-spinatus fossæ, but there was no evidence of any new growth springing from the scapula itself. The muscles arising from the scapula and passing to the head of the humerus felt rather harder than normal, and so were cut off as close to the former as possible. Microscopical examination of the tumour: Spindle-celled sarcoma, with a few round cells scattered throughout the growth.

On the 20th the wound in the skin had healed, and on February 26th the patient was discharged, apparently cured. She was advised to attend the hospital from time to time, in order that the parts might be closely watched. She did not, however, return till about the middle of May, when a large tumour was found, apparently involving the whole of the scapula. The patient stated that she first noticed pain about the shoulder six weeks before.

The tumour seemed to involve the whole of the scapula, and was of semi-spheroidal shape. Across its centre the skin was nodulated, discoloured, and adherent, but there were no enlarged glands in the neighbourhood. The tumour, which was very hard and dense, was freely movable on the chest walls. The patient was kept in the hospital a few days, in order to prepare her for the operation, which, as already stated, was performed on Saturday last in the following manner, with strict antiseptic precautions (Listerian).

The patient, having been placed under the influence of an anæsthetic, an incision was made through the skin across the clavicle about its middle. This bone was then divided by means of a small saw and cutting pliers. The subclavian and the posterior scapular arteries were compressed by Mr. Royes Bell through this incision, while Mr. Wood extended the incision vertically downwards to the level of the lower border of the scapula in front. Two incisions were then made across the tumour, inclining upwards and backwards from the vertical incision, so as to include part of the cicatrix of the previous operation and those portions of the skin that were implicated by the growth. The upper and lower flaps thus formed were then dissected up from the growth, which, with the morbid scapula, was then rapidly removed from its connexions to the chest walls by cutting its attachments from before backwards. The serratus magnus and adjacent muscles did not seem to be implicated. Fifteen vessels were secured with carbolised catgut, and after the insertion of drainage-tubes the skin-flaps were neatly brought together, and fixed by deep and superficial sutures of wire and silk. The wounds were covered by "protective," and then enveloped in eucalyptus gauze. Thanks to Mr. Bell's complete control of vessels, very little blood was lost, and the patient seemed to bear the operation fairly well. Unfortunately, however, she did not rally from the operation, and died the same evening.

### EXCISION OF THE UPPER END OF THE FEMUR.

(Under the care of Mr. HENRY SMITH.)

The patient, a man aged twenty-six, had had disease of the right hip since childhood, and when admitted into the hospital some weeks since was suffering from all the symptoms of advanced hip disease to an extreme degree. The limb was shortened, adducted across the other thigh; the buttock was much altered from its natural state, and was riddled with sinuses discharging much matter. The pain was very severe. The general disturbance was great, the patient suffering much from night sweats and cough, and some pain in left side of the chest; indeed, the latter symptoms were such as to lead Mr. Smith to suspect pulmonary tubercle, and an operation was postponed until repeated examinations had failed to detect any serious lung mischief. In the performance of the operation, which was of unusual difficulty, the section of the bone, which was extremely dense, was made through the trochanter, and when this had been removed it was found that the head of the bone had almost entirely disappeared, and on carefully examining the acetabulum a portion of necrosed bone about three-fourths of an inch in extent was found impacted as it were in that cavity. It was readily removed by an elevator, and was ascertained to be the remains of the head of the femur.

Mr. Henry Smith remarked that this case showed how desirable it was to remove the trochanter in this operation. As it facilitates the exploration and removal of dead bone from the acetabulum at the time, and obviates the possibility of any portions of loose bone being retained during the after-treatment. He had no doubt that in this case the necrosed head of the femur had been retained in the acetabulum for years.

## GREAT NORTHERN HOSPITAL.

### A CASE OF FRACTURE OF THE SKULL; CURIOUS MUSCULAR TWITCHINGS AND SPASM; DEATH.

(Under the care of Mr. ADAMS.)

FOR the following notes we are indebted to Mr. James MacMunn, late resident medical officer.

A collection of cases of traumatic and localised brain lesion followed by definite muscular disturbance may be serviceable in elucidating the physiological anatomy of this organ.

S. J——, aged four years, was admitted in October, 1879, suffering from fracture of the skull, the history being that the child had a fall on its head down an area some twenty feet in height.

On admission one hour after the accident the child was in a state of collapse. The breathing was eight per minute and irregular; the pulse 60, also irregular. The face was pale, the surface cold, whilst complete relaxation of the voluntary muscles was present. Unconsciousness existed, not, however, to irritation; thus when ammonia was held to the nostrils the child turned its head partly around as if to avoid the fumes. The pupils were dilated and reacted imperfectly. There was no stertor. The progress for a time tended towards reaction, the pulse rising in frequency and

becoming regular, but signs of cerebral irritation soon supervened, whilst the symptoms worthy of notice were: 1st. Extreme and persistent flexion of the forearm, with clonic jerking of the muscles (120 times per minute), causing the hand to be bent upon the forearm and the latter upon the arm to the fullest extent. 2nd. A boring of the index-finger of the same hand in the eye of the corresponding side. The clonic spasms were powerful, and when the limb was forcibly extended and then released it immediately assumed its peculiar attitude again. The legs and right arm, as indicative of the cerebral irritation, were also slightly flexed by a tonic contraction, but not in the least disturbed by any jerkings. Convulsions came on at times most marked in the left side, and aggravating for some time afterwards the jerking in the left arm. The child could not swallow; the eyes, examined ophthalmoscopically, showed in the left eye comparative arterial emptiness; both pupils contracted to artificial light, the movement being, however, sluggish, but with no appreciable difference. There was more dilatation of the right than the left pupil. Blood was effused into the left upper lid, and was both subconjunctival and subcutaneous. The pulse rose in frequency, and diminished in force; the surface grew cold, and the patient died thirty-six hours after admission, in spite of the means taken to try to prolong life. Careful examination failed to reveal any external signs of fracture beyond those already given; indeed there was no appearance of contusion either, the child having fallen on soft ground. The necropsy showed fracture in the left side, extending from near the eminence of the frontal bone downwards, and then backwards through the orbital plate, and terminating two lines to the outer sides of the anterior clinoid process; second, a large extravasation of blood lying on the posterior part of the left frontal and the anterior third of the parietal lobes extending in a diminishing volume downwards to a rent in the ophthalmic artery. There was blood effusion into the sheath of the optic nerve. Not the least laceration of brain substance was present. There was no flattening, no lesion of the convolutions on the right side. The extravasation did not at any part extend beyond the mesial lines of the base of the brain, nor within two inches of the longitudinal fissure above and to the side.

There was therefore in this case a definitive lesion of a cerebral hemisphere, an irritation caused by blood effusion expressing itself in a marked rigidity and clonic spasm of the muscles of the arm of the corresponding side, and this in the absence of any right-sided brain lesion, direct or transmitted. Had the patient been an adult it is probable that paralysis would have existed instead of spasm, but this paralysis would be where the spasms were, for, of course, the tracts by which impulses travel are the same at all ages. Again, were the operation of trephining decided upon, which was contra-indicated by the child's low state, it would have been done on the right side—i.e., opposite to the spasms and convulsions—and the extravasation would not be found.

Advertence may be made to another case of fracture of the skull, which was admitted to the Great Northern Hospital about the same time as the foregoing. It was that of a man who suffered from simple melancholia and hallucination of vision, subsequent to, and evidently dependent on, a depressed fracture just over the angular gyrus, and including a portion of the supra-marginal lobule.

## L'HOPITAL CANTONAL, GENEVA.

### OPERATIONS FOR THE REMOVAL OF THE THYROID BODY IN GOITRE.

FOR the following notes we are indebted to Dr. Alfred Wise:

CASE 1.—Aged sixty-six. There was no family history of goitre in this case. She said she had always drunk wine, and but seldom drank water. She attributed her goitre to carrying heavy loads on her head. She first noticed the swelling twenty-eight years ago; it had gradually increased in volume without giving rise to pain or much inconvenience. She had never been under medical treatment. At the inferior part of the neck was a voluminous tumour, situated anteriorly—circumference at the base, 43 centimetres; vertically, 23 centimetres; transverse, 29 centimetres. The tumour was movable, elastic, fluctuating, and gave the impression of a large sac with thick walls, having hard patches of a cartilaginous material in their texture. Pulsation could be seen beneath the skin. The inferior part of the mass descended a little below the notch of the sternum, and on the left side passed under the sterno-mastoid. The sterno-hyoid and sterno-thyroid muscles were in front of the tumour, forming little cords below the skin at their points of insertion above. No signs of compression of any organs of the neck presented themselves. The pupils were normal.

On March 14th Professor Julliard made a free vertical incision over the middle of the tumour, the enucleation of which was easy until the deep attachments were reached. A large number of veins and some arteries were ligatured with catgut as soon as divided. The internal jugular was in close relation with the tumour for eight or ten centimetres, being enlarged to the size of the thumb and pulsating with each respiration. The adhesions to the trachea and larynx were broken down with the fingers, aided by scissors, directors, &c., and the mass removed without much loss of blood. The goitre was found to be developed from the left lobe of the thyroid body; and the right lobe being hypertrophied, was removed also. A decalcified bone drain was introduced into the wound, the edges were brought together by catgut sutures, and dressed with protective oil-silk; sponges squeezed out in carbolic lotion; thick layers of muslin (treated in the same way); gutta-percha tissue over this, and muslin bandages over all. The large tumour weighed 1200 grammes, and consisted of a cyst of colloid matter, encapsuled by tough walls of six to eight millimetres in thickness; it presented patches of cartilaginous material and small points of rough calcified irregularities. The smaller tumour weighed thirty grammes and presented the aspect of a parenchymatous goitre without cysts. Carbolic spray was not used in this operation, and chloroform was given sparingly. The temperature before operation was 36·2° C., evening 37·3° C.—15th: Morning temperature 36·7° C., evening 38·0° C.—16th: Morning temperature 37·0° C., evening 38·0° C. Fresh dressings were applied.—17th: Morning temperature 37·2° C., evening 37·9° C. General condidition was satisfactory.—19th: The wound was united by first intention except at the orifice of the drain. Dressings were discontinued and a piece of strapping placed over the opening.—28th: Since the last note the patient has been confined to bed again with pain, fever, and other symptoms indicating the formation of a large abscess in the neck. This has been opened and about twenty-five ounces of healthy pus evacuated, the temperature falling to 36° and 37° C.

3rd April: The discharge of pus was diminishing, and the patient was progressing favourably.

CASE 2.—Aged nineteen. In this case there was a family history of goitre, the mother and two sisters of ten and thirteen years of age being affected. The patient stated that the goitre commenced when she was eleven years old, and now became larger and harder at each menstrual period. The swelling was as large as a fist, and was situated on the left side of the median line more than on the right. It measured twelve centimetres by fifteen, and was movable, elastic, and fluctuating. No vessels were seen on the surface, and the tumour followed the movements of deglutition. On the 4th of March the patient was put under chloroform, and Professor Reverdin extirpated the whole of the thyroid body. The operation occupied three-quarters of an hour, some difficulty being experienced from the attachment of the tumour to the trachea and a number of veins requiring ligature. The patient suffered a good deal from cough and dyspnœa caused by irritation of the trachea, and was very feeble after the operation. A decalcified bone drain was inserted, the wound sutured with catgut, and dressed antiseptically. All the proceedings were carried out under carbolic spray. Temperature 38° C. in the evening.—5th: Evening temperature 39·7° C. in the rectum.—6th: Temperature 38·6° C.—8th: Temperature 38·2° C. Fresh dressings were applied. The wound had united by first intention, with the exception of the orifice where the drain had been absorbed. Cough and painful deglutition were diminishing.—10th: Temperature 37·9° C. in the axilla. Dressings reapplied. Firm union had taken place, with the exception of the orifice left by the drain, from which a small quantity of thick and slightly fetid pus escaped.—14th: Temperature 37·5° C. The patient had been up for some days.—17th: The secretion of pus had not ceased, but was without bad odour.—27th: The quantity of pus had been diminishing since the last note, and it now caused but little inconvenience. There was a firm healthy cicatrix above the

fistulous opening, and the patient was able to assist in the work of the ward.

*Remarks.*—Professor Reverdin has operated 13 times for the extirpation of goitre, and Dr. Auguste Reverdin 4 times. Out of these 17 cases 3 have died—viz., 1 case of calcified, suffocating goitre, 1 case of ordinary suffocating goitre, and 1 case of cancer of thyroid, with thrombosis of jugular vein. Out of the remaining 14 operations 12 have healed by first intention, sometimes with little fistulæ lasting for a time, and 2 have healed by second intention.

# Reviews and Notices of Books.

*Minor Surgical Gynæcology.* By PAUL F. MUNDÉ. New York: Wood and Co.

WHEN we first saw the title of this work we became curious to see its inside, because it appeared to us that there was no subject on which it would be more difficult to write a *manual* which would be useful to the student, the general practitioner, and the patient (for some consideration should be shown her), than minor surgical gynæcology. And this appeared to be the case for two reasons: (1) Inventive genius has been so marvellously prolific in this field of medicine that, in order to do justice to the innumerable tools of all kinds which have been or are still used by some gynæcologists, the work would necessarily degenerate into an illustrated catalogue of instruments. (2) With regard to many of the operations characterised unfortunately by the term "minor" which are practised upon the pelvic female organs, opinions so diverse are held that it would be impossible to discuss them in an adequate manner in a manual. The first of these difficulties the author appears to have felt, for he states in the preface: "I have endeavoured not to give the book the appearance of an instrument-maker's catalogue." Of the second, however, in so far as we have been able to discover, he appears to have been utterly unconscious.

The work is divided into two parts: the first, which forms about one-third of the whole, treats of Gynæcological Examination. This is again subdivided into chapters on verbal examination, methods of local examination, postures for examination, examination couches, examination without instruments, and examination by means of instruments. All these subjects are treated of fully, and the student who has mastered this part of the work will have the means at his disposal for diagnosing the conditions to be met with in the female pelvis. This part contains one hundred illustrations, of which nearly forty are of vaginal specula or drawings to explain their use. It is not easy to find the object of some of the illustrations—indeed, we have quite failed,—while many others would find their appropriate place in an "instrument-maker's catalogue" only.

The second part treats of "Minor Gynæcological Manipulations and Applications." It is in the writing of this part that the second difficulty mentioned would or should be felt. Curiously enough, however, the author has selected to describe several operations, such as division of the cervix, excision of the lips of the cervix, applications to the endometrium, the value and place of which have not yet been definitely settled, while he has omitted small operations, such as removal of cysts of the vulva and of the vagina, of extruded polypi, and division of an imperforate hymen, about which opinions are in the main agreed; so that much space is devoted to the description of operations of doubtful value and necessity—operations which are, it is true, practised and extolled by many, but are, on the other hand, rejected by others as unnecessary, or often productive of mischief.

To displacements and their treatment by pessaries, both vaginal and intra-uterine, the space and number of illustrations devoted are utterly beyond their importance. There are more than seventy drawings illustrating these instruments, many if not most of which have no peculiar value outside the imagination of their inventors. Indeed, these instruments seem to serve no good purpose except to exhibit in a very painful manner the unscientific character of our knowledge of diseases of women. Some of the illustrations in this part of the work are evidently no more than diagrams. They have not been drawn from nature; and when we compare them with what is found in nature we find them to be incorrect. We refer more especially to the illustrations of the uterus in a state of flexion. In all of these the cavity of the uterus is shown dilated. Now, there are several specimens of the flexed uterus preserved in museums, and accurate drawings of some of them have been made and published, but in none of them is the canal in a condition of dilatation. It is true that most of the illustrations bearing on this matter are not original to the author, but copies from the works of others, but they have been made according to a preconceived theory, and not from specimens. There are some things in the work which we prefer to pass without notice.

There are many matters described in it about which all are agreed, and in so far it is a sound guide to the student; but, as we have pointed out, and this is of far greater importance, the work contains descriptions of manipulations and operations about the value of which there is much doubt; and the one thing certain about them is that they are not unassociated with serious danger, and consequently they should be had recourse to but rarely. In some cases they have proved fatal, while in others they have been productive of permanent injury, rendering their subjects life-long invalids. Operations of this kind, in which benefit is doubtful and the risk great, should not be undertaken by the advanced student, nor indeed by anyone who is not perfectly acquainted with the conditions in which they may justifiably be had recourse to, and fully cognisant of their dangers. Could we regard the female pelvis as a storehouse for instruments or a laboratory for physiological and pathological experiment, we would heartily recommend the work before us as one of the best of manuals; but as we regard the patient as an important, and indeed the only important, factor in the operation, the sole object of which should be her benefit, we cannot approve the frequent recourse to means associated with so much danger. We think the author has attempted an impossible task in writing a manual on minor gynæcological surgery which would prove beneficial to student, general practitioner, and patient. The subject is at present incapable of such treatment. Although the descriptions of manipulations and operations in the work are well done, yet this is not sufficient. It is as important to know when to operate or to introduce a pessary as to know how. This knowledge cannot be gained by the perusal of a short manual descriptive of operations, but by study of the larger works on gynæcology, together with observations at the bedside. In minor gynæcological surgery the knowledge how to operate without knowing when is far more likely to prove injurious than no knowledge at all, or than mere expectant treatment. Although this work, in our opinion, lacks some of the most important qualities a manual should possess, yet we cannot withhold our admiration for the diligence, method, and ability shown in its compilation. We can only regret they were not directed to a worthier object.

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*Archives of Dermatology.* Edited by Dr. BULKLEY. Vol. VII., No. 2. New York: Putnam's Sons.

WE have much pleasure in directing renewed attention to this very excellent publication, which is, since the discontinuance of the *Journal of Cutaneous Medicine and the*

*American Journal of Syphilography and Dermatology*, the only scientific journal published in the English language devoted exclusively to skin and venereal diseases. It continues to afford valuable assistance to those who give special attention to these classes of disease, and, to our mind, in a greater degree than the similar journals in France, Italy, and Germany; but it is further the aim of the editor to so enlarge its field of usefulness as "to serve as a communication between the specialist . . . . and those in general practice." Dr. Bulkley has been fortunate in the many able collaborators who have assisted him in his endeavours, and we are glad to see that two of the younger English dermatologists, Mr. Morris and Dr. Colcott Fox, have now been added to his staff—the former taking the duty of digesting the recent literature of the anatomy and physiology of the skin, and the latter therapeutics and such general topics as medicinal rashes, statistics, baths and mineral waters, &c. We hope the "Archives" will meet with the support it deserves amongst British practitioners.

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*The Life and the Poetical Works of John Critchley Prince.* By R. A. DOUGLAS LITHGOW, LL.D., M.R.C.P. Edin., F.R.S.I., &c. In three Volumes. Manchester: Abel Heywood and Son. London: Simpkin, Marshall, and Co. 1880.

WE ought sooner to have noticed this work, and we can only do so now with much more brevity than we could wish. The work has this double interest for us, that it contains the record of a human life which, despite its poverty and its sins, has great and beautiful lessons; and, secondly, that the life is written, and the poems are edited, by a member of our profession, with a sympathy and an appreciation of genius which are never more fitly placed than in the medical man, to whom nothing is foreign that is human. To take time from a busy professional life to write the life of a working man, born in 1808, who thought himself a poet, and wrote poems that fill two considerable volumes, is not a proceeding that would commend itself to all medical men. But Dr. Lithgow has so done his work as to lay all lovers of poetry and all lovers of men under considerable obligation. We should, indeed, have noticed these volumes weeks ago but for the fact that whenever we have taken them up we have found a sort of fascination either in the poems themselves or in the life of Prince as told by Dr. Lithgow. Prince was undoubtedly a poet of no mean genius, and, though he struggled with poverty such as working men nowadays know or need know little of, this very poverty and struggle enhance the value of his poetry and our admiration of it. We commend his poems and Dr. Lithgow's "Life" to our readers—the one for their beauty, their melody, and their healthiness of sentiment, and the other for its great sympathy and its truthful narration of a life too common in its misery, but too rare in the thoughts and faculties by which even misery is elevated and mitigated.

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*Syllabus of Materia Medica for the Use of Students, Teachers, and Practitioners.* By ALEXANDER HARVEY, M.D., and ALEXANDER DYCE DAVIDSON, M.D. Fifth Edition. London: H. K. Lewis. 1881.

THE popularity of this little book is attested by the appearance of the fifth edition. It is practically a list of the preparations of the British Pharmacopœia, and is sufficiently compact to go into the waistcoat-pocket. It is a convenient book of reference to the practitioner, and we fear also a convenient cram-book for the student. The attempt to assign the relative value to different preparations and drugs, by means of numbers, is retained, but seems to us of very doubtful utility, giving, where it does not mislead, no useful information.

# New Inventions.

## RESPIRATOR FOR USE AFTER TRACHEOTOMY.

DR. ARNISON, of Newcastle-on-Tyne, has designed a respirator to be attached to the front of a tracheotomy tube. The respirator is intended to obviate the risk of pneumonia, which is one very fertile cause of death after tracheotomy, and is probably caused by breathing air which has not been warmed and moistened by traversing the natural air-passages on its way to the lungs. It is on the principle of the ordinary respirator, and consists of six circular plates of fine wire gauze enclosed in a box. The box slides into a rim which projects from the front of the neck-plate, and it is so made as to be easily removed, not only by the surgeon or nurse, but also by the patient himself if he should find any impediment to breathing through fouling of the plates. The lid of the box (an open ring) takes off, and the plates can be taken out and cleaned, being quite free and not attached to each other. It has been tried on a patient of Dr. Drummond in the Newcastle-on-Tyne Infirmary, and it was not found necessary to clean the plates oftener than once in two or three days. A disc of carbolised gauze catches any discharge coughed up, and so prevents fouling. It is evident that the respirator cannot be used where there is persistent cough with expectoration, which would rapidly foul the plates. It is only adapted to cases where cough is absent or comparatively quiet, in which it may probably be prevented or relieved by breathing warm air, moisture being supplied by a steamer as usual. The tube is the ordinary tracheotomy tube, and is made in two sizes, one respirator fitting both. The respirator has been made for Dr. Arnison by Messrs. Weiss and Son. The only suggestion we would offer is that it would be an improvement if the box and plates could be made still lighter than they are, so as to lessen the weight of the respirator.

## MESSRS. SOUTHALL BROS. AND BARCLAY'S SURGICAL APPLIANCES.

THE above firm are the manufacturers of some very useful materials for surgical purposes. They prepare a Dextrinised Millboard which is sold in strips and angles; it is very light and firm, and yet brittle enough to be easily broken into required lengths. When soaked in boiling water it becomes pliable in a few moments, and is then readily moulded to a part, and quickly again becomes hard, forming a very light, cleanly, and sufficiently rigid splint. We have also made a trial of their Antiseptic Pads, formed of absorbent cotton-wool enclosed in absorbent gauze, and the whole impregnated with salicylic and carbolic acids. Their absorbent power is extremely valuable, and they are a very simple and cleanly dressing for open and discharging wounds. They are made of various sizes, and some are well adapted for the lying-in room. The Antiseptic Absorbent Bandages may be useful in some particular cases. Of Southall's Antiseptic Elemi Plaster or Hospital Strapping we can only say that after a fair trial we have found it superior to any we have hitherto met with. It is very pliable, adheres without heat or moisture, is cleanly to use, does not crack off, and does not adhere too closely. Its antiseptic property may be of some value when applied directly to wounds, but whether this is so or not, its other excellences enable us to recommend it with confidence.

## TINNED-WIRE STILETTES.

MESSRS. SAMUEL LAW & SONS have submitted to us some specimens of their fine tinned-steel-wire stilettes for hypodermic syringes. For strength and elasticity they far surpass those generally supplied with the syringes, and are really of use in clearing the fine tubular needles of dirt or crystallised metalloid. Similar wire of larger gauges can be utilised for the stilettes of catheters, &c.

# THE LANCET.

*LONDON: SATURDAY, JUNE 11, 1881.*


THE high percentage of rejections at the various examinations recently held at the Royal College of Surgeons of England is of grave significance and importance to everyone interested in medical education. Some critics (perhaps unsuccessful and disappointed teachers) have indulged in angry comments on the general character of the examinations conducted by the authorities of the College, and have even impugned the competency of some of the examiners. This pique is, perhaps, only natural. The exigencies of the examination system drive teachers and examiners into open and avowed antagonism. There is constant and incessant strife over the merits of the pupil and candidate. Teachers and students, when unsuccessful, are apt to imagine that the examiners are crotchety, capricious, and unfair, while the examiners, when the rejections are high, will not hesitate to declare the candidates are ill taught and badly prepared. Considering that the oral parts of the examinations at the College are open to Fellows of the College, and to other members of the profession properly introduced, it would, at first sight, seem easy to discover the meaning and reason of this high rate of rejections. The matter is not, however, so simple, because an important element is wanting. The quality of the examination and the character of the examiner may be determined, and a sufficiently correct judgment may always be formed of the fitness of a candidate, but there is no means of discovering the merits of the absent teacher whose business it has been to superintend the candidate's training and education. In the hope of obtaining some clue to the great number of rejections we have repeatedly visited the oral examinations for the Membership as well as for the Fellowship, and we will state at once that we entertain a very strong opinion that in a large number of instances candidates are very imperfectly trained, and not a few have evidently undergone no sort of preparation for examination. This is most noticeable at the pass examination for the membership, and least noticeable at the first examination for the membership. The conditions of the Fellowship examination are peculiar, and do not materially affect the question we are now considering—namely, the average education of medical students.

No one, we imagine, will dispute the statement that the first examination, or examination in anatomy and physiology, is a more trying ordeal for the young student than the second, or pass examination; and yet, as a rule, candidates acquit themselves better at the first examination than at the final. We would go so far as to say that even at the pass examinations weak candidates are, usually, better acquainted with surgical anatomy than with practical surgery and surgical pathology. Indeed, it is not uncommon to see a candidate familiar with all the superficial markings and "landmarks" of surgical anatomy, but ignorant of many of the rudiments of practical surgery. The obvious explanation of this remarkable difference is that students are, nowadays, taught anatomy and physiology systematically, and have fairly good facilities for practical study. With practical surgery and surgical pathology, on the other hand, the reverse obtains. To be present at the practical part of the pass examination for the membership is often a melancholy occupation. Many candidates seem to have no notion as to how they should proceed to examine a patient. At a recent examination it was not rare to find candidates ignorant not only of the differences between hydrocele and orchitis, or hydrocele and hernia, splay-foot and suppuration of the tarsal articulations, enlarged bursa and periosteal swellings, or enlarged bursa and fatty tumour, but ignorant also of the methods of physical examination by which those differences might be discovered. Whether the fault be his own or his teacher's, a candidate has not been trained who cannot apply any other test to a hydrocele, or orchitis, or hernia than balancing the enlarged scrotum on the flat of his palm, who examines for fluctuation by prodding a swelling with the tip of his middle finger, who is unable to apply any other test than ocular inspection to a doubtful tumour, and who does many other things that candidates at the College are often observed to do. All this implies absence of practical training. There is in our medical schools no lack of lectures and no scarcity of demonstrations, such as they are, but there is an urgent need of larger opportunities for practical training in clinical medicine and surgery. As no one can acquire skill in practical chemistry or physiology by means of lectures alone, and without practising experiments and manipulations in the laboratories, so no one can become a skilled medical practitioner without actual personal labour in the various departments of a hospital. There is reason to fear that in straining after a transcendental pathology and an over-elaboration of physical aids to diagnosis, the student is not taught the rudiments of his art. This must be patent to anyone who will take the trouble to visit the College examinations, especially during the off season.

We have no desire to pose as apologists for any body of examiners or any examinations, nor do we wish unduly to disparage the candidates. We wish merely to express the conviction based upon a large experience—namely, that as regards practical surgery and surgical pathology, the medical student is at best but imperfectly trained, and at worst he is not trained at all. Nor will this be a matter of surprise when we consider the difficulties of providing dresserships and clinical clerkships for all the pupils at a large school. Even at the largest hospitals there is a dearth of clinical offices compared with the number of applicants, while at the smaller hospitals many students have practically to go without dresserships. From some hospitals many students are compelled to present themselves for examination without any other knowledge of practical surgery than they have been able to acquire while writing prescriptions for the out-patient surgeon, or in opening once or twice abscesses in connexion with impetigo of the scalp, or occasionally strapping an ulcerated leg. Some remedy for this unsatisfactory state of things will have to be found. One way out of the difficulty might be to adopt a proposal made some time ago, to open up the workhouse infirmaries for clinical instruction to medical students. There are doubtless many drawbacks to this plan, but probably not more than to any other. It

would, however, be necessary that the authorities of the schools should exercise full and efficient control over such extra-academical hospitals.

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AMONG the most important recent additions to our knowledge of the pathological changes which attend and characterise inherited syphilis is that of the affections of the growing extremities of the bones which leads to the separation of the epiphyses. It is not, indeed, a new discovery. VALLEIX, in 1835, described an instance of separation of the epiphyses, with suppuration and with overgrowth of the periosteum, in a newly-born child, and recognised its dependence on inherited syphilis, but the observation remained isolated for thirty years, until, in 1864, RANVIER and others published some additional examples of the change. Our present knowledge of the subject, however, dates chiefly from the careful account of it given by WEGNER in 1870, to which important new facts have been added by PARROT, TAYLOR of New York, GOODHART, and BARLOW. The affection of the ends of the long bones has lately been carefully studied by HEUBNER and VERAGUTH, whose papers appear in the last number of the *Archiv für Path. Anatomie.*

WEGNER regarded the change as an inflammatory irritation commencing in the deepest layer of the cartilage, and extending from this to the bone, while WALDEYER, KÖBNER, and PARROT consider that the bone is the seat of the primary change. The view of WEGNER has been upheld by HAAB, who described a peculiar fissuring of the cartilage, which he considered to be the initial change, and to constitute a primary syphilitic chondritis, and this conclusion is now confirmed by VERAGUTH, from a careful examination of a well-marked case. HAAB described finely granular linear degenerations extending through the cartilage, but VERAGUTH found in addition a peculiar fibrillation of the cartilage which seemed to be the immediate cause of the cleavage. It is probable that these fibres are not of new formation, but exist normally. According to TILLMANNS and KASSOWITZ, they may be rendered visible by the maceration of thin sections of normal cartilage in dilute nitric acid, or in a solution of chromic acid, and have then precisely the arrangement which the syphilitic process discloses. They interlace in all directions, but in the proliferating zone there is a preponderating arrangement in parallel bundles. Hence, according to VERAGUTH, the first step in the pathological process is that under the influence of the virus in the blood of the syphilitic child there occurs an excessive formation of vessels in the cartilage, and a corresponding overgrowth of the cellular elements. The change is greatest in the proliferating zone, and soon assumes a distinctly inflammatory character. *Pari passu* with this productive activity of the cells a retrograde process occurs in the intercellular tissue. The cementing substance between the fibrillæ becomes softened, or as it were dissolved, and the solidity of the cartilage is lessened in consequence, especially in the proliferating layer, in which the parallel arrangement of the fibres renders the effect of the change in the interfibrillar material the greater, and ultimately permits the occurrence of the parallel fissures which then extend through to the perichondrium. The cells increase in number by proliferation, and to them are added numerous lymphoid elements which wander in from adjacent vessels. Several observers have described a transformation of the medulla of the bone into granulation tissue, and the growth of this tissue into the fissures in the cartilage. This was not present in VERAGUTH'S case; many of the vascular canals of the cartilage contiguous to the growing papillæ of the medulla contained spindle-shaped and angular cells, but not in sufficient abundance to suggest an actual ingrowth of the medulla, so that the latter must clearly be regarded as an after-effect, the result of the fissuring, and not its cause. Some morbid changes were found in the bone itself, but these were of a degenerative character—fatty degeneration of the cells of the medulla, deficiency of osteoblasts, and abundance of giant cells,—and are to be regarded as secondary to the affection of the cartilage, which is thus, as HAAB asserted, a primary syphilitic chondritis.

This affection of the growing bones is usually painless, non-febrile, and readily influenced by treatment. It is very different with a morbid state which sometimes accompanies it—suppuration into and about the joints adjacent to the bone disease. This complication is accompanied with fever, often runs an acute course, almost like that of an acute specific disease, is attended with much pain and a pseudo-paralytic condition of the affected limbs, and is generally fatal in spite of treatment. It is to this that HEUBNER'S paper is devoted, and two well-marked cases are described. The comparative rarity of suppuration shows that it is not a necessary consequence of the bone disease, although the latter must be regarded as the exciting cause of the formation of pus, since no case unattended by the peculiar affection of the ends of the bone has yet been met with. Of the cause of the predisposition which exists in some cases, and permits the disease of the bone to excite suppuration, little is yet known. It has no relation to the extent of the osseous mischief. In one of HEUBNER'S cases this was comparatively small, and was lessening, together with a syphilitic eruption, under treatment, when the suppuration occurred, and ran a most rapid course. Moreover, a disposition to the formation of pus can scarcely be regarded as a characteristic of syphilitic lesions. It may be that the chief influence is that tendency to suppuration which is so often manifested by all children during the first few months of extra-uterine life. SENATOR has lately called attention to the great frequency of purulent pleurisy and pericarditis in infants at the breast, and HEUBNER points out also that primary purulent meningitis is almost confined to this age. Moreover, purulent joint affections have been met with in infants as complications of other diseases, such as purulent inflammation of the pleura. This tendency, then, may constitute the predisposition; but although it explains the occurrence of the suppuration, it scarcely explains its rarity. Some additional general or local condition must exist when it supervenes, and this, it is suggested, may be the conveyance of irritating material by the lymph channels from the diseased bone. It is well known that in bone slight influences, scarcely recognisable, may determine the benign or malignant character of an inflammatory process, as in the development of osteo-myelitis. Indeed, the joint affection we are now considering bears resemblance in many particulars to a pyæmic process, and is attended with a similar jaundice.

Its practical importance is very great. It has apparently

been almost invariably fatal, and its nature during life has rarely been recognised. Its symptoms—high fever, severe pain, and immobility of limb, with swelling of joints supervening on a slighter affection of the ends of the bones in a subject of inherited syphilis—are so characteristic that the nature of the malady need never be mistaken.

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THE *Evening Standard* is dreadfully irate in its own decorous fashion because, in a recent notice of the association for providing nurses for the sick poor, while expressing unbounded sympathy with the main object of this Society, we avowed a certain degree of doubt with regard to the policy, and some misgivings as to the result, of the proposal "to raise the standard of nursing and to improve the social position of nurses." Our courteous contemporary observes censorially: "There is a feeling of uneasiness lest raising the standard of nursing should mean raising the standard of revolt against the heaven-born custom of calling in and paying a doctor always and everywhere. There is an almost sacerdotal fear that if the laity get to learning more than to open their mouths and shut their eyes, and take what the doctor sends them, we shall perchance some day find them applying their own sticking-plaster, dressing a burn, or even putting on a bandage." Considerable candour characterises the way in which the argument is put, and it is impossible to avoid recognising the elegance of the remark about "paying the doctor"; but we are not in a complaining spirit, or inclined to be hypercritical as to words. It may be confessed we do view with suspicion and regard with fear the attempt to develop a separate craft of nursing, and to encourage the "laity" in applying their own sticking-plaster, dressing burns, and putting on bandages; and we will tell the *Evening Standard* and all who may be good enough to be interested in our opinions, why. Trained nurses are, perhaps not unnaturally, prone to magnify the quasi-medical knowledge they pick up in the wards of a hospital, and relying on their intelligence and experience, they apply the sticking-plaster to fractured skulls, dress the burns according to their own notions of expediency, with remedies of their own selection or concoction, and put their bandages on still dislocated or unset fractured limbs. Being intelligent women, and therefore, in their own estimation at least, more gifted than men, they assume, or claim to have acquired, a "practical" knowledge of the art of healing in the course of a brief training under a "sister" not less incompetent than themselves, which qualifies them to act *with* instead of *under* the physician or surgeon in charge of a case, and by their presumption jeopardise the success of his treatment, or even induce the friends of the sick person to dispense with his services. Besides this, the professional recognition given to these women fosters a feeling in the public mind that medicine and surgery are, after all, very simple methods or practices in aid of recovery, and that a "knowledge" which can be acquired in a few months cannot be really very important.

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The "trained nurse" tends to displace the doctor, and the intuitive instinct of "common sense" prevalent among the community will in its turn supersede the "trained nurse." The whole movement is essentially retrograde. Medicine has with difficulty succeeded in raising itself to the level of a scientific calling, and now by the creation of a class of professional nurses, it is preparing the way for a return to the days of the "wise women," and further back to that older time, when a false sentiment of religion claimed the art of healing as a mysterious attribute of the priests and their agents, and obviated the need of a laborious investigation of the laws of Nature by an affectation of skill to treat disease by the light and aid of the supernatural. When once the trained nurse is raised above the level of an agent charged to carry out the instructions of the medical man in attendance on a case, she quickly begins to *help* the doctor, and will in the end replace him. We are content to take our contemporary's own account of the use to which the knowledge assumed to be acquired by these nurses is destined. "Take the not uncommon cases of paralysis of the lower limbs, or spinal curvature, with bed-sores. Is it a movement to be viewed with suspicion, that a doctor having such a case under him should have it attended every day for him, and the necessary work done by a nurse who has had the benefit of training?" &c. It is curious that the illustration selected should be one of bed-sores accompanying some cerebro-spinal affection! Has our contemporary forgotten one or two of the more prominent incidents of the recent struggle at Guy's Hospital? Did it not occur to his recollection how in one case want of power, the effect of disease, was mistaken for sulkiness or hypochondriasis; while in another, the "nursing department" in its wisdom routed up a patient suffering from an acute brain affection, and who ought on no account to have been moved, in order to apply a routine dressing of dusting-powder for imaginary bed-sores? Had the nurses in these instances not been "trained," the physicians in attendance might, indeed, have been put to the trouble of giving explicit directions as to their management, and, in order to attain the knowledge requisite to enable them to give these directions, they must, as young men, have mastered the art of *nursing* the sick in practice as well as principle; but all this pain and labour would have been amply compensated by the assurance that the sick under their care were skilfully attended. There is nothing to be gained by "training" nurses beyond the point of making them docile and intelligent attendants on the sick, qualified to carry out the instructions of a medical practitioner efficiently—but *not* qualified to undertake even the *nursing* without his express orders, still less to usurp his position at the bedside, and treat the case.

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It is time the profession and the public took the question of training for nurses into very serious consideration. We concede that it is a trouble-saving expedient, but for the sake of ease at the moment we are sowing the seeds of greater trouble in the future. No question can arise as to the need and benevolence of providing nurses for the rich and the poor, particularly the latter; but the nurses so provided should be *nurses* simply and exclusively, not pseudo-practitioners. The practical difficulty arises from the fact that women are naturally of an aspiring nature, and they have for some time past been incited by unscrupulous agitators to struggle for what they are pleased to consider enfranchisement—an enfranchisement from all that is feminine and womanly. They are no longer content to achieve excellence in the

*manner* of nursing. The aim—most shortsightedly encouraged by the profession—is to make nursing something more than sick-tending. The "trained nurse" of the day scorns the simple notion of keeping a patient "clean and comfortable," and doing what the doctor tells her in regard to the administration of food and medicine. She must have room to "exercise her discretion," and unless the discretion left is wide, and the "order" given expresses or implies recognition of her special character as the professor of an art of "nursing" which is something beyond the ken of the medical practitioner, she will either "retire from the case"—that is the phrase,—or with mute malignity take it into her own hands behind the back of the doctor and treat it after her fashion. These nurses will do anything to exalt their position and magnify their importance. If every now and again comes to the knowledge of medical practitioners that, having established a reign of terror or blandishments over the patient, they will adopt measures of treatment and even give medicines in secret. As we write, a case recurs to our recollection in which it was discovered that a skilled nurse had been systematically dosing a lady after her confinement with chamomile-tea to such an extent as to prevent her taking proper nourishment. There was no question as to the *bona fides* of this nurse. She meant excellently well, and was treating the case to the best of her "skill" for a symptom which she preferred to keep from the knowledge of the doctor. Neither the patient nor her immediate friends dared to complain, or to breathe a misgiving, to the medical man in attendance until the condition became serious. This was a small matter, and we mention it because it may be thought comparatively insignificant. It is against the small beginnings of insubordination we need to contend. If any association can or will take the trouble to convince the medical profession that its *sole* aim is to train nurses to carry out the instructions of practitioners, the movement will inspire confidence, and deserve our warm support. Nurses should be trained as cooks and housemaids are trained, not to order the dinners or to arrange the domestic business of the household, but to do as they are bidden. If women of "superior intelligence" and "social position" are willing to engage in work of this class—which, however, seems to the last degree unlikely—they may do it as well as those who are less favoured in the matters of birth and education, but there is no reason to suppose they can discharge the onerous and essentially disagreeable duties of the sick chamber more efficiently than respectable women of the classes immediately below them. There is not less need of a new opening for honest work available for the daughters of the artisan class and small shopkeepers, than for the daughters of medical men, clergymen, and the seemingly well-to-do but really struggling classes midway in the ranks of society. We must confess to a strong persuasion that it is from the lower middle classes and the families of the industrial orders of the community nurses should be taken. And being derived from these classes the young women should be trained not to act as *professional* persons in hospitals and private houses, with a profound contempt for menial work, and a proud assumption of the right to be "waited on" and "obeyed" by all about them, but simply to deport themselves and do their duty as tenders-of-the-sick, having the intelligence suited to their position, and showing their skill in the strict and simple performance of the tasks specifically entrusted to them, without either claiming to possess or pretending to exercise a knowledge of disease and its treatment, which must always in fact, and should therefore also avowedly, lie beyond them. It is in the interests of the sick, not less than of the professors of the art of healing, we give expression to these views on the subject of trained nurses, and we are convinced that sooner or later the public and the profession will see cause to agree with us.

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LONDON is not only the largest and the healthiest of the large cities of the world, but it is, probably, the only city which possesses trustworthy mortality statistics extending over a period of forty years. The Registrar-General has just issued his Annual Summary of the Vital Statistics of London and other large English cities for the year 1880, completing the fourth decade of observation since the Registrar-General's Weekly Return was first published. The death-rate in London during 1880 is reported to have been equal to 22·2 per 1000 of its inhabitants; and we are told that in only five other of the last forty years has so low a death-rate been recorded. It must be remembered, moreover, that when this Annual Summary was under preparation the results of the recent Census were not known, and that the population of London in the middle of 1880 was, therefore, under-estimated. We now know that the true London death-rate during last year did not exceed 21·5 per 1000, a lower death-rate than which has been recorded in only three of the past forty years. The fatality of zymotic diseases somewhat exceeded the average last year, which was mainly due to the epidemic prevalence of summer diarrhœa; the deaths referred to fever (including typhus, enteric, and simple) showed, however, a further considerable decline, and were fewer than in any year on record. The 475 fatal cases of small-pox showed an increase of 25 upon the number in the previous year, and exceeded the average for non-epidemic years.

The main interest of the present return, however, centres in the retrospect it affords of the health statistics of the forty years 1841–80. The decade which closed with the year 1880 was one of lower mortality in London than any of the three preceding decennial periods for which trustworthy statistics are available. It appears that the death-rate, which had ranged from 23·7 to 24·9 in the three decades of the thirty years 1841–70, and which averaged 24·3 during the whole period, declined to 22·8 in the ten years ending 1880. The rate in the most recent decade, moreover, is further reduced to 22·4, if the mean population of the period be calculated in accordance with the number recently enumerated. The health of London, which was practically stationary during the thirty years ending 1870, showed a marked improvement during the following ten years, and it may be estimated that, at least, 70,000 persons within Registration London were living at the end of the ten years who would have died had the mean death-rate of the preceding thirty years been maintained. It is satisfactory to note, moreover, that if the last decade be divided into two quinquenniads the death-rate in the later is considerably lower than that in the earlier five years. These facts are referred to by the Registrar-General as affording strong evidence that the sanitary efforts of recent years have not been unfruitful, more especially as the increasing density of the population in London would in-

evitably have led to increased mortality if not counteracted by improved health organisation. The reference of the lower death-rate of the last decennium to improved sanitation in the metropolis appears the more fully justified when it is borne in mind that the saving of life is almost entirely due to diminished mortality from zymotic diseases. It is shown that this mortality, which had been all but stationary during the three preceding decennia, fell during the last decade no less than 25 per cent. below its previous average. A considerable portion of this gain was doubtless due to the immunity from fatal Asiatic cholera during the ten years; but the decline of fever fatality affords undoubted evidence of improved sanitary condition. The average annual death-rate from fever differed but slightly in the first three decades of the past forty years, and averaged 0·92 per 1000. In the ten years 1871–80 this fever death-rate dropped to 0·37 per 1000. We are reminded that these figures signify that nearly 19,000 more persons would have died from fever during the ten years in London if the rate from this cause had remained at its previous level; and further, that more than 100,000 Londoners were preserved from attacks of fever by the improved health condition of the metropolis. The fatality of scarlet fever during the past ten years was also considerably below that recorded in any of the three preceding decades. The death-rates from measles, whooping-cough, and diarrhœa were also somewhat lower during the last decade, although the decline was less marked. Perhaps the most unsatisfactory feature of the recent mortality statistics of London is the slight decline that has taken place in the rate of infant mortality. Infant mortality, measured by the proportion of deaths under one year to births registered, was equal to 158 per 1000 in London during last year, and corresponded with the mean rate in the ten years 1871–80; in the preceding thirty years infant mortality, measured in this manner, averaged 159 per 1000. Bearing in mind the considerable decline in the general death-rate and the marked decrease of zymotic fatality, a larger fall in the rate of infant mortality should have been recorded. Although infant mortality is probably fully as much a social as a sanitary question, it is a subject demanding more attention at the hands of sanitary authorities than it has hitherto received.

# Annotations.

"Ne quid nimis."

## THE INTERNATIONAL MEDICAL CONGRESS.

THE preparations for the forthcoming meeting of the International Medical Congress are well in hand, and would appear to be worthy of the occasion, which promises to be one of very great interest. The final arrangements for the places of meeting are made, and all the Sections—sixteen in number—will be accommodated in the rooms of the University of London, or of the various Royal Societies close by. The Royal College of Physicians has given up rooms for the offices of the Reception Committee, and this will form the lay head centre of the Congress. The list of members of the Congress is opened already, and those intending to join are requested to enrol themselves at the College of Physicians without delay. At the last there is sure to be a great rush of foreigners, and for this reason, and also to enable the Committee to have a good idea of the number likely to be present, it is desirable that all who can should join at once. We would remind those who have subscribed to the expenses of the Congress that such subscriptions do not include the entrance fee of one guinea. This is charged to everyone, subscriber or non-subscriber, and will hardly cover the bare cost of the literary material presented to each member. We may add that this will consist of a volume, published before the meeting, containing an abstract, in English, French, and German, of all the papers presented to the Congress, and, later on, the volume of Transactions, with all the papers in full. The expense of publishing these volumes will be so great that the fees of membership are hardly expected to meet it. The list of subscriptions is still open, and as there are yet some members of the profession who have not responded to the appeal of the Executive Committee, we would remind them of the adage, *Bis dat qui cito dat.* One of the features of the meeting will be a Museum of Pathology; for this all objects of medical or surgical novelty relating to pathology or the illustration of disease will be acceptable. But the Committee has wisely decided to keep two or three special points in view. One is to show groups of patients illustrating the following rare diseases: Addison's Disease, Coincidence of Gout and Rheumatic Arthritis, Charcot's Joint Disease, Myxœdema, Syphilitic Bone Disease in Children, Mollities Ossium, Primary Muscular Atrophy, Rupture of Large Nerve-trunks, Morphœa, Keloid of Alibert, True Leprosy, Lupus Erythematosus, and Xanthelasma. Dr. Ord has promised to exhibit a series of cases of Myxœdema, and Dr. Dyce Duckworth one illustrating the various phenomena of Gout. It is needless to enlarge upon the instructive nature of a collection of Leprosy cases—say six or ten—such as no one individual could possibly see together without a journey to Norway or India. It is hoped that by the assistance of the various metropolitan hospitals this part of the undertaking will be made very successful. The Committee is anxious that all who have now under their observation cases of the kind asked for will keep the addresses of them, and make arrangements in good time for their attendance. Another feature of the Museum will be a classified collection of drawings, photographs, or models of diseased conditions. It is also proposed to exhibit a collection of Vesical Calculi of unusual character, or those which have been removed by unusual methods, more especially by Bigelow's operation; and of Biliary Calculi of large size which have been passed per anum or removed by operation. Intending contributors to the Museum should signify their intention as early as possible to the Sectional Secretary, Mr. H. H. Clutton, 16, Palace-road, S.E.

## THE EFFECT OF PERIPHERAL IRRITATION ON ANÆSTHESIA.

THE interesting observations of M. Grasset on the removal of anæsthesia of cerebral origin by the application of blisters to the skin, to which we directed the attention of our readers in a former number, demonstrate in a striking manner the influence which peripheral impressions exercise on the action of the central nerve-cells. That a similar influence may be produced when the cause of the anæsthesia is not central but peripheral, is shown by an interesting case lately brought before the Société de Biologie of Paris by M. Malécot. There was anæsthesia of the shoulder, arm, and upper part of the forearm following a wound two centimetres long, three fingers'-breadth below the outer extremity of the clavicle, and a finger's-breadth within the anterior axillary line. The resulting anæsthesia involved the shoulder, arm, upper part of the forearm, and the front of the thorax on the same side, being bounded by an irregular line, not corresponding to the distribution of any nerve. There was also

some muscular weakness in the forearm. The wound healed, but the anæsthesia remained for two months unmodified by any treatment. The anæsthesia being regarded as reflex, the result of an action on the centre, a blister, ten centimetres square, was applied over the cicatrix. Next day the sensibility had returned in the forearm and inner part of the arm, just above the elbow. A second blister, just above the wound, increased the area of sensibility, and after a third blister the anæsthesia of the shoulder and thorax gradually disappeared.

## THE COLLEGE ELECTIONS.

MONDAY next is the last day for sending in applications for election into the Council of the Royal College of Surgeons. The Fellows who may be expected to compete are Sir James Paget, Mr. Haynes Walton, Mr. Sydney Jones, Mr. Hulke, Mr. Croft, Mr. C. Heath, and Mr. Reginald Harrison.

## EMPLOYMENT FOR SOLDIERS' WIVES.

IT is satisfactory to know that those with whom rests the responsibility of the nursing in military hospitals are by no means so blind to the difficulties involved in Lady Strangford's scheme for the employment of soldiers' wives in that duty as the report of the proceedings of the meeting at Woolwich fairly seemed to indicate (see THE LANCET of June 4th). It appears from a statement in the *Broad Arrow*, that the report of that meeting which was furnished to the daily papers was very inaccurate, one-sided, and incomplete. While it recorded the presence of Lord Chelmsford, Sir Frederick Roberts, and Lady Strangford, it omitted all reference to Surg.-General Shelton, who might be naturally supposed to have more practical knowledge of the subject than most of those who took part in the proceedings. But he did not, like Lord Chelmsford, endorse all the views held by the lady patroness; on the contrary, he pointed out the practical objections to the scheme, and foreshadowed the difficulties likely to arise in working it, and on that account, we presume, his presence at the meeting was ignored, and his remarks were not reported. The point to which Mr. Shelton chiefly called attention was the existence already of agencies for nursing in the army. These are—(1) The Army Hospital Corps, which has shown itself so efficient on service in the Transvaal; (2) the regular staff of trained female nurses at Netley and Woolwich, always available for service when they may be required; (3) the staff of female nurses supplied by the National Aid Society, and now undergoing training in the military hospitals; and (4) the female nurses specially employed wherever there is a hospital for women and children. With these resources in existence, Mr. Shelton doubted the expediency of starting another organisation which could only be carried on efficiently at a very considerable outlay. Is such a course necessary, and is it justifiable? We are disposed to answer these questions in the negative. It seems much more desirable to improve, and if necessary to extend, systems now in operation, and which are doing really valuable though unostentatious work, than to start new societies with the usual staff of paid officials, and with the drawback of coming into unnecessary competition with those already in existence. The omission from the report of the Woolwich meeting of any reference to Surgeon-General Shelton—the representative of the Army Medical Department—to the telling remarks made by him on the unnecessary expenditure of labour and money likely to arise from carrying out the scheme, and to the clear exposition he gave of the adequate provision already in operation for nursing in military hospitals, has given rise to an unpleasant feeling with reference to a movement which, if necessary, ought to enlist the warmest sympathies of all who feel an interest in the welfare of our soldiers.

## ST. GEORGE'S HOSPITAL AND THE ATKINSON-MORLEY CONVALESCENT HOSPITAL.

THE annual report of St. George's for this year is an interesting one, though we can only note a few of the principal facts. As to out-patients, means have been taken to reduce the number, so that relief should be given only to the necessitous. The decrease in 1880, as compared with 1879, is 142. We are struck by the smallness of this number. As regards in-patients, the most noticeable fact is that 2500 out of 3543 were admitted without letters of recommendation, and in consideration only of the urgency of their cases. The Hospital Saturday Fund withheld £100 on account of not receiving more letters, though it received in the same proportion as the Hospital Sunday Fund, and 52 more than it used. The hospital makes out so good a case that the Hospital Saturday Fund should send the £100, especially as the managers of the institution, in consequence of decrease in receipts and increase in expenditure, have had to sell nearly £8000 worth of stock. In the letter of the secretary to the secretary of the Hospital Saturday Fund, it is said that of the number treated in the hospital, 1500 were working men or their wives and children. We are curious to know the occupation of the remaining 2000, which, the secretary would seem to imply, were *not* of the working class. Of the 3180 patients discharged from the hospital in 1880, 681, or 21·35 per cent., were admitted to the Atkinson-Morley Convalescent Hospital.

## FISH.

THERE can be no question that fish might with advantage form a more common article of diet than it now does. It is notorious that the market supply is manipulated to keep up prices, the commodity being regarded as a luxury rather than a necessary. Nobody is to blame for treating the article thus *commercially*, but it is a reproach to the good sense of the community that the value of fish as an article of food is not generally recognised. It is eminently a form of nutriment well suited for the use of a population working to a very considerable extent with its brains, and exposed in no ordinary degree to the wear and tear caused by worry. If proper arrangements were made for the rapid transit of fish to the metropolis, and an adequate and accessible market were provided for its sale, the population might be well supplied at reasonably low prices. Obviously those who trade in fish cannot be expected to incur the risk of loss by the spoiling of a peculiarly perishable article before it can be distributed, and they may well be excused for some finessing to keep up prices; but difficulties such as these ought to be overcome. It is not necessary to point out to medical readers the importance of a full and good supply of fish, but it is time the profession took means to bring considerations well known to themselves under the notice of the public, so that the opportunity which seems to have occurred for the removal of needless obstacles to the use of fish as an element of ordinary diet may be utilised.

## ANOTHER HOSPITAL DIFFICULTY.

WE understand that a serious difference of opinion exists at the Bristol General Hospital between the Staff of the institution and the Committee (or rather a small majority of the Committee) as regards the material best suited for use in the reflooring of the wards. It appears that when the hospital was rebuilt in 1856, cement floors were laid down, and that in the brief period of twenty years these floors had become so bad that it was necessary to renew them. The Staff held strongly that cement was not suitable for the flooring of a hospital, and that wood was the only material that should be used; the Committee, however, in the face of this, by a bare majority, decided to relay cement; and accordingly this

material was used throughout the building. Within a few months the condition of these new floors had become so faulty that the Committee were warned by the Staff of the danger that might arise to the patients under treatment in the institution. Various experiments were tried in the attempt to put the existing floors into a satisfactory condition, but without success; and the latest decision of the Committee has been to entirely relay one of the wards with cement—the very material that had already so signally failed—turning a deaf ear to the emphatic and repeated protests of the Staff, and to all the scientific evidence that has been furnished them in proof of the great superiority of wood. The matter has assumed so serious an aspect that the president of the hospital has resigned his post, on the ground that he cannot share the grave responsibility thus incurred by the Committee; and we believe that the Staff are taking measures to bring the whole case before the general body of governors of the institution. It is difficult to conceive how a body of men possessed of average intelligence and capable of forming an unbiased opinion, could have taken so erroneous a course as that adopted by the Committee. The cement floors had signally failed; surely if the same material was worthy of any further trial, it should possess advantages from a medical point of view far greater than any other. But exactly the reverse is the fact. In the first place cement is highly absorbent, and is therefore calculated to form a fit soil for the development of those preventable diseases—erysipelas and the various forms of blood-poisoning—against which it is the aim of modern science to defend a hospital. Further—and this, too, is a very grave objection—a cement floor is exceedingly cold, and cannot but exercise a most injurious influence upon many patients. It is well known that even persons in apparent health will suffer from rheumatic pains after standing on stone or cement floors; and upon patients whose vitality is lowered by disease the chilling effects of such floors will in many cases exercise a most prejudicial influence. Wood is unquestionably the only material fit for hospital floors. It can be so laid and coated as to be non-absorbent, it is easily cleaned and kept in good condition, it is far less noisy than cement, and is warm and comfortable for the patients—in short, it is in every respect incomparably superior to cement. The latter material is suitable for barns and warehouses, but is altogether out of place in a hospital. We cannot but think that those members of the Committee who are so anxious to perpetuate the mistake originally made in the hospital would hardly select cement as a flooring for their own bedrooms. It appears that, according to the existing rules, the Staff send two representatives to the Committee, but that these have no power to vote. The position in which men of scientific training and high professional standing are thus placed is most anomalous; and recent events have shown how important it is that those who are best qualified to decide the scientific questions that from time to time come before a hospital committee should be able to enforce their opinion by a vote. We believe our view will be endorsed by the governors of the hospital when the matter comes before them for consideration.

## INOCULATION OF RABIES.

M. PASTEUR and his assistants have succeeded in communicating rabies by the inoculation of the brain of a dog dead of the disease. The experiments were successful with pieces of the cortex and of the medulla oblongata, and with the cerebro-spinal fluid. There is, of course, nothing very remarkable in this result. It has long been known that the virus is widely diffused in the body of the dog, and it would be strange if the brain did not contain it, when we consider the demonstration which the symptoms afford of the action of the poison on the nerve-centres. M. Pasteur moreover asserts that by trephining a healthy dog, and placing in contact with its brain cerebral tissue from a rabid animal, not only is the disease communicated with certainty, but the incubative period is reduced to a few days in every case. The disease may manifest itself in either of its two habitual forms—the ordinary form, or "dumb-madness."

## BANQUET TO THE PRESIDENTS OF THE ROYAL COLLEGE OF PHYSICIANS AND THE ROYAL COLLEGE OF SURGEONS.

ON Saturday, the 4th instant, Sir William Jenner and Mr. Erichsen were entertained at a banquet at St. James's Hall, given in their honour by their colleagues in the Faculty of Medicine of University College and on the staff of University College Hospital. The chair was occupied by Professor John Marshall, F.R.S., who was supported on his right and left by the two guests of the evening. In addition to members of the present staff, there were present Dr. Russell Reynolds, Sir Henry Thompson, Dr. Hare, Dr. George Harley, and Dr. Maudsley. Dr. Walshe and Mr. Quain were unavoidably prevented from attending. The meeting was purposely made as informal and as friendly as possible, and the only toast was that of the two distinguished guests, who, having been fellow-students together and colleagues both at the college and hospital, had respectively risen to the highest attainable distinction in their respective branches of the profession. It was pointed out by the chairman that, although it is necessarily a somewhat rare event for the Presidents of the two Colleges to be supplied from the same medical school, it is by no means without precedent. The dinner was excellent, and the evening will long be remembered as a pleasant social gathering of friends to do honour to colleagues of whom they may well be proud.

## SUICIDE WITH A REVOLVER.

A VERY remarkable case of suicide occurred at the village of Priors Marston, near Leamington, on May 15th. The deceased, a master bricklayer, aged fifty-nine, was found by his brother-in-law, dead, lying on his right side near a chest of drawers, and with his clothes on fire. This was at 12.20 P.M. on Sunday, May 15th. Mr. F. W. S. Culhane deposed that on stripping the body he found the skin under the left nipple blackened and charred, and in the centre of it a wound, which had the appearance of a bullet wound, and was found to traverse the pericardium and both ventricles of the heart. The sixth rib was broken, and the pericardium full of blood. The bullet was not found. The body when first seen was quite warm. The charring and burning of the chest were due to the clothes being on fire. The burns had the character of post-mortem burns. When first found the heels of deceased were almost touching the chest of drawers. The top drawer was partially open, and in it was found a seven-barreled revolver with one chamber recently discharged and the other six loaded. The case presents several points of interest. In the first place the burning and charring were so considerable (the coarse jacket, corduroy waistcoat, shirt, under-vest, and band of trousers being destroyed almost entirely on the left side) as to lead to the idea that death was in some way connected with burning, and it was only on a close examination that the bullet wound was discovered in the middle of the charred wound. The dropping of the pistol into the drawer in which it was found was a very peculiar circumstance, and the accidental closing of the drawer by the first person who came into the house made he cause of death still more of a puzzle at first sight. However, there was no doubt that it was a self-inflicted wound, and the only question lay between ccident and suicide.

## ROYAL COLLEGE OF PHYSICIANS.

A MEETING of the Royal College of Physicians was held on the 8th inst., under the presidency of Sir William Jenner, Bart. A letter from the Secretary to the Medical Acts Commission inviting the College to specify any matters within the scope of the Commission upon which the College could afford further information was under consideration; but no conclusion was arrived at. After some discussion it was decided to summon a special meeting at an early date for the purpose of obtaining a definite expression of opinion on the part of the College as to the way in which its interests would be affected in the event of a State Licensing Board being instituted; and also to give the Commission such information as might be deemed necessary upon the whole subject.

## M. LITTRÉ.

BY the death of M. Littré the medical profession loses one of its most distinguished members. Though M. Littré was not a medical man in the strictest sense of the term, he devoted ten years of his earlier life to the study of medicine and the allied sciences. He was finally prevented from taking his degrees by the loss of his father, which compelled him to lay aside for awhile his intention of practising physic to take to literature. Next to his famous dictionary of the French language his best known work is his edition of the Hippocratic treatises. To the preparation and publication of this work he devoted more than twenty years of painstaking labour. Littré's "Hippocrates" is, and will probably remain for many years to come, the most complete and scholarly collection of the treatises written by the "father of medicine" and his disciples. M. Littré was a conspicuous illustration of the healthfulness of hard work. His industry was as inexhaustible as his learning, and though over eighty years of age his energy until a few months ago showed but little abatement.

## ARMY MEDICAL OFFICERS' BENEVOLENT SOCIETY.

AT the annual meeting of the Army Medical Officers' Benevolent Society, held on May 21st, Inspector-General Lawson in the chair, £770 were voted, in various sums ranging between £10 and £50, to thirty-one orphan families of medical officers, with the object of assisting in their education. This Society, which was founded in 1820 by the late Sir James McGrigor, Bart., for so many years the Director-General of the Army Medical Department, has during the long period of sixty years been the means of affording valuable and much-needed assistance to the orphans of medical officers. Very careful inquiries are made into the circumstances of all candidates before any recommendations are made by the committee, and we have reason to believe that the affairs of the Society are efficiently and prudently conducted, and that it well deserves the countenance and support of the Department.

## CHURCH BELLS.

THERE is not a word to be said against church bells in the abstract, or in their proper place—that is to say, in the country, where a peal of bells may be useful to call the residents scattered over an extensive district to service; but in towns they are an intolerable and most mischief-working nuisance. To the sick, suffering from headache and nervous irritation, the ding-dong and jangle of church bells constitute a very serious annoyance; and we do not hesitate to say, in many cases, the loss of rest and the general disquietude they produce not only lessen the chance of recovery, but may expedite a fatal issue. This is a grave charge, but we make it advisedly. The labour of covering the roadway with tan or straw, to drown the noise of passing vehicles, is vain while the bells of the neighbouring churches remain unmuffled. It is difficult to exaggerate the magnitude of the evil to which we draw attention. It is a daily cause of injurious excitement to the sick, and a provocative of ill-temper to the healthy. The time is approaching when it may be needful, in the interests of the weak and suffering, to apply to the Legislature for a special enactment prohibiting the ringing or tolling of church bells in populous localities. For the present, however, the appeal lies to the humanity of the clergymen and churchwardens of city and suburban parishes. Surely they will not persist in a perfectly unnecessary infliction, which is shown and known to work dire evil!

## "HOMŒOPATHIC REMEDIES" DO NOT ACT HOMŒOPATHICALLY.

THE medical profession and the public will be interested to learn, on the highest authority, that homœopathists do not themselves believe that what are called "homœopathic remedies" act *homœopathically*. It seems that no homœopathist has of late years even pretended that the drugs he employs cure disease on the principle *similia similibus curantur!* This dogma is simply a statement of the so-called "principle" on which the homœopathist selects his remedies. This is obviously a minor consideration, and one in which the public has little if any interest. What the patients of homœopathic practitioners expect from these gentlemen, and fee them for, is "homœopathic *treatment*." It is a matter of perfect indifference to the sick man or his friends how the physician *selects* his drugs. The only practical question is how he treats his cases, and in what manner the drugs act. Having elicited a frank confession of the facts as to the action of drugs, we can only appeal to honest men still connected with this so-called "Homœopathic School" to abandon openly a position which they admit does not exist, and which is, therefore, only a name—full of meaning to the lay public, but of no significance to themselves. We do not wish to speak strongly on the subject, but it is certainly the reverse of candid to retain a name which means nothing and deludes the public. With the publication of the letters which appear in another column, the discussion must end. The truth is now at length before our readers on the admission of leading homœopathists, and the only possible inferences are writ large and plain.

## THE INFLUENCE OF THE VAGUS ON THE HEART.

M. FRANÇOIS FRANCK has endeavoured to determine on what part of the heart the influence of the vagus is first manifested. He has found that if the peripheral extremity of the divided pneumogastric is stimulated with a current so feeble as to just produce the arrest of the cardiac action, the ventricles alone cease to contract; the auricles on the contrary go on pulsating, but more slowly than before, and if the stimulation is continued or is increased, they also stop. It is supposed that, normally, the systole of the auricles is the immediate excitant of the systole of the ventricles, but the stimulation of the pneumogastric in this case appears to prevent this normal response to the auricular contraction, although the effect of the latter in distending the auricle continues, as a manometer introduced into the ventricle demonstrates. This is true, however, only of the right side of the heart. When the ventricles are arrested the left auricle receives little or no blood, while the right auricle becomes distinctly overfilled. The difference is probably due to the slight tonicity of the pulmonary vessels compared with those of the general system. It is not owing to any simultaneous contraction of the vessels of the lungs, due

to the stimulation of the vagus, for, as Brown-Séquard and others have shown, the vaso-motor nerves of the lungs are derived from the sympathetic, and not, as has been taught, from the pneumogastric nerve.

## BILLROTH'S CASE OF EXCISION OF THE PYLORUS.

WE learn from the *Wiener Medicin. Blätter* that the woman upon whom Professor Billroth performed the operation of excision of the pylorus and adjacent part of the stomach, with temporary success, for the cure of a cancerous growth, has just succumbed. The operation was performed in January, and all promised well until about a month ago, when she began to fail, and death took place from exhaustion. She has lived long enough, however, to testify to the practicability of the operation.

## PROVIDENCE IN MANCHESTER.

THE forty-ninth annual meeting of the subscribers to the Manchester and Salford District Provident Society was lately held. The committee seems to have been able to give a good account of its stewardship. Reference was made to the Provident Dispensary Association thus:

"The establishment of provident dispensaries was contemplated in the original scheme of the Society, and the amalgamation was welcomed by the Provident Dispensaries Association, whose organisation for want of sufficient funds was at the time only making slow progress towards providing efficient medical aid and medicine, at low weekly subscriptions, for the families of working men who, not able to pay ordinary medical fees, were either left to neglect, plunged into debt, or were reduced to beg for charitable aid. The experience of the past year had taught the Committee that the task they had undertaken would be no easy one, and that they must expect little aid or sympathy from existing medical associations. It was thought that the expenditure—spread over three years—of £2500 would be sufficient to meet the requirements of the Society for that purpose, but the Committee now believed they would require at least £4000 to thoroughly establish and accomplish the work they desired to do."

## MUMPS.

MM. CAPITAN and CHARRIN, having regard to the clinical evidence on which mumps is classed among the acute infective diseases, have searched for an organised virus in the secretions of patients suffering from the disease. In the blood of every case they found an abundance of minute organisms, for the most part spherical, but partly prolonged, and in the form of mobile rods. In the saliva, as is usual, there were large numbers of organisms, but most of these resembled those found in the blood. None could be discovered in the urine.

WE learn that Dr. PAVY has been pursuing his investigations upon the physiology of sugar and its allied principles in the animal system, and has obtained results which have opened out a fresh line of research, and led up to a new light being thrown upon the subject. His results will be brought before the Royal Society at the last meeting of the session on Thursday next.

DR. BARCLAY of London, Dr. A. Ransome of Manchester, Dr. De Chaumont of Netley, and Dr. Corfield of London, have been appointed examiners for the sanitary science certificate at Cambridge. The examination will commence on Oct. 4th. Professor Liveing is the secretary.

A MEETING for the purpose of discussing the project of establishing a Scarlet Fever Convalescent Home is announced to be held at the Mansion House on the 27th inst., at 3 P.M.

IN Edinburgh the winter months are now so largely occupied by systematic lectures that students are anxious to overtake most of their practical work during the summer session, and this accounts for the increase in the number of short courses on special subjects which are undertaken at this time. These lectures are mainly voluntary as regards attendance, and yet they are in many cases crowded—as, for instance, the class of Practical Physiology in the University. The Histological and Practical courses on Pathology in the University and extra-mural schools are also well attended, while in the dissecting-rooms students in unusually large number are at work. The new class-room in the Botanical Gardens is now in use.

WE direct the attention of our readers to important notices with reference to medical registration. Gentlemen are occasionally astonished to find themselves no longer on the Medical Register. The explanation is that they have changed their address without giving notice to the Registrar. Under these circumstances the Council is empowered to remove names. It is important to notice that it is not enough to intimate change of address to any Registrar. The intimation must be made to the Branch Registrar by whom the practitioner was originally registered.

A SPECIAL hospital has been opened at St. Petersburg for the treatment of epileptics and idiots—classes of patients excluded both by the existing general hospitals and the lunatic asylums. The hospital is situated out of the city, on the line of the Finland railway, in a healthy position amidst gardens and pine forest, and is furnished with great comfort. Dr. Thiling, who has given special attention to the treatment of mental maladies and diseases of the nervous system, has been placed at the head of the medical staff.

AT a stated meeting of the New York Academy of Medicine, held May 19th, 1881, the following resolution was moved by Dr. Charles C. Lee, seconded by Dr. Alfred C. Post, and unanimously adopted:—"That the congratulations of the New York Academy of Medicine be transmitted to T. Spencer Wells, Esq., Foreign Associate of the Academy, for his remarkable and unprecedented achievement of one thousand operations of ovariotomy, by which the lives of seven hundred and sixty-nine women have been saved."

MR. MCALISTER, who was senior wrangler in 1877 and subsequently pursued medical study at Cambridge and at St. Bartholomew's Hospital, has been appointed medical lecturer in St. John's College, Cambridge. The office is a new one, and its occupation by so distinguished and able a person is likely to attract medical students to the College and to give additional efficiency to the medical school of the University.

WE understand that a conversazione will be held at the South Kensington Museum on Wednesday evening, June 29th, to celebrate the fiftieth anniversary of the Harveian Society. A committee to carry out the arrangements has been appointed, consisting of the President, Mr. Henry Power, Dr. J. E. Pollock, Dr. Farquharson, M.P., Mr. George P. Field, and Mr. Malcolm Morris.

A SORT of Co-operative Workmen's Medical Association has been started at Chatham. About two thousand artisans residing at Rochester and Chatham are said to have joined the Society. They will appoint their own medical officers, purchase their own drugs, &c.

DR. STURGES has been appointed Foreign Examiner in Medicine at the University of Durham for the present year.

# Public Health and Poor Law.

## LOCAL GOVERNMENT DEPARTMENT.

### REPORTS OF MEDICAL OFFICERS OF HEALTH.

*Port of London.*—The Reports of the Port of London Sanitary Committee and of its medical officer of health for the half year ending the 31st December contain several matters of much interest. They give an account of valuable work done during the period to which they refer, and suggest certain important questions for further consideration. It appears that the number of ships visited during the half year was 8740, including 398 "outward bound," and that of these ships 354 were found in a more or less insanitary condition. The total number of ships visited during 1880 was 16,341, of which 563 had to be cleansed or otherwise dealt with sanitarily. But the diminution in the number of unwholesome ships visiting the port since the Port Sanitary Authority commenced its work is remarkable. In 1873 no less than 17 per cent. of the vessels inspected were found uncleanly; during the six months to which this report refers, only 3 per cent. had to be so classed. Hitherto the detailed sanitary work of the port has had to be done by the medical officer of health, aided by two inspectors. This strength of staff has not been found equal to the demands made upon it by the new arrivals daily, and the visitation of ships in dock has had to be neglected. The Sanitary Committee has now decided to appoint a third inspector. Dr. Collingridge reports the health of the port as having been exceedingly good, with the exception of certain outbreaks of infectious sickness on board the training ships. Sixty cases of sickness were removed from ships to hospital. The state of the water in the river during the summer gave rise to some anxiety from the large quantity of sewage it contained. This was derived in part from the floating population of 15,000 to 20,000 persons, from numerous still open drains and closets which empty into the river, and which will require special attention, and from a proportion of sewage derived, Dr. Collingridge states, from the outfalls of the great metropolitan sewers at Barking and Crossness. Dr. Collingridge evidently is suspicious that the sluices at these outfalls have been at times opened during the flow of the tides. It is clear that the vexed question of the influence of the sewage outflow at Barking and Crossness upon the state of the water in the river above the outfalls is not yet fully settled, the Metropolitan Board of Works notwithstanding. But readers of the report will probably be more interested in the suggestion made by Dr. Collingridge that a further epidemic of typhoid fever on board the reformatory school ship *Cornwall*, anchored, if we mistake not, five miles below the metropolitan sewage outfalls, may have been determined by the sewage poured from these into the river and diverted into the bight where the ship rides. He writes of the volume of sewage being visible in the stream where the ship lies, and of chemical evidences of greater sewage pollution of the water on the north shore than the south. "If the constant outpouring of the sewage continues," he writes, "it will become sooner or later a grave question whether the Thames will any longer be a proper or safe river for stationing training-ships." In view of the serious question here suggested, and of other questions not less serious, it is to be hoped that Dr. Collingridge will give continuous attention to the subject. His statement as to visible evidence at Purfleet of the large outflow at Barking and Crossness will strike many persons with surprise; and with regard to the chemical evidence considerable doubts will be entertained. The metropolis is often accused by residents on the lower reaches of the river of "stinking them out" by the offensive refuse it frequently sends down for agricultural purposes in barges. Dr. Collingridge's revelations as to the enormous quantity of fish condemned at Billingsgate indicate in part a source of the intolerable stench to which people inhabiting the rural districts on the Thames below London are subjected. Dr. Collingridge has some observations on the port sanitary authority's hospital-ship, the *Rhin*, which suggest increased doubts as to the wisdom of the selection of a ship for hospital purposes by the Metropolitan Asylums Board, to relieve the pressure upon them in reference to small-pox.

*Greenock.*—A copy of a correspondence as to landing infected persons from emigrant ships at Greenock accompanies the reports for the month of April of the medical officer of health (Dr. Wallace) and sanitary inspector (Mr. Mackay). From Mr. Mackay's report we learn that emigrants suffering from infectious diseases have been sent ashore and forwarded to Glasgow in the most promiscuous way, without information being conveyed to the sanitary authorities either of Greenock or Glasgow. Now that attention has been called to this matter no doubt the arrangements for the medical inspection of emigrants, which are described as "inherently bad," will be modified.

*Hastings.*—Mr. Ashenden reports for the first quarter of the year a birth-rate of 30·19 per 1000 of the population, and a death-rate of 16·75. The advantage of the borough possessing a sanitary hospital was shown by the occurrence of two cases of small-pox (a mother and child) who were removed there, and the spread of the contagion arrested.

*Birmingham.*—Dr. Hill reports for the first quarter of the present year births at the annual rate of 39·50 per 1000 population, and deaths at the annual rate of 21·29 per 1000 population.

*Dublin.*—Dr. Cameron reports for the five weeks ending 30th April that the mortality of the city was in the annual ratio of 31·78 per 1000 living, the rate being 31·8 on the northern side of the city, and 32·36 on the southern. Typhus predominated among the zymotic diseases.

### THE CARDIFF UNION WORKHOUSE.

Dr. Alfred Sheen, the medical officer of the Cardiff Union Workhouse, has issued an excellent report on the medical condition of the workhouse and schools belonging thereto for the year 1880-81. The cases of sickness admitted to the workhouse hospital during the year numbered 1087, of whom 617 were discharged cured, 183 relieved, 16 transmitted to the asylum, and 131 died, 140 remaining under treatment on the 25th March. It is evident that during the period to which the report refers the workhouse has been sorely put about from insufficiency of space to bestow upon its sick, and in respect to accommodation of cases suffering from infectious maladies. But these difficulties, it appears, will presently be remedied, as a new Union workhouse is now being erected which will give double the accommodation afforded by the old one. The question of nursing in the workhouse hospital seems to require attention, for the arrangements do not appear to have been framed with due regard to the number of serious cases of maladies now received in it. The consumption of stimulants in the workhouse, which Dr. Sheen showed in his previous report had been largely reduced, was still further reduced last year. The schools are reported as having been free from any serious amount of disease during the year. We learn that it was the custom until recently to allow children born in the workhouse to leave the house unvaccinated to swell the section of the population unprotected against small-pox. This Dr. Sheen has now remedied, and finds, it would appear, little difficulty in obtaining the mother's consent to the vaccination of the child before she goes forth among the general population. The reference to the fact calls attention to this curious oversight of the Vaccination Authority (the guardians themselves forsooth), and how readily it may be overcome without anyone's feelings being offended as soon as attention is directed to it.

### THE METROPOLITAN WATER-SUPPLY.

Colonel Bolton, R.E., reports that the water in the Thames in that part of its course where the Metropolitan Water Companies draw from the river their supplies was good in quality during the whole of April; and Mr. Crookes, Dr. Odling, and Dr. Meymott Tidy report for the month ending May 19th that the waters supplied by the different water companies had been "uniformly clear, bright, and almost colourless, proving that they had been well and efficiently filtered." Examined chemically they showed "excellent aeration and great freedom from organic matter. They leave nothing to be desired for dietetic purposes."

### AN IRRECONCILABLE COW.

At the recent Dorset Quarter Sessions, on the discussion of a report from the county analyst, Viscount Portman brought before his colleagues the case of a cow which utterly

disregarded the provisions of the Adulteration of Food Acts. The proprietor of the animal had been convicted by the magistrates for selling milk deficient in cream, and had appealed against the decision. After careful examination the Inland Revenue Department Laboratory found that the deficiency arose from no manipulation of the milk, but was peculiar to the cow from which it was obtained. The law has made no provision for a contingency of this sort. The milk was normally abnormal, and we presume that cows so constituted will have to be discarded from contributing to the public milk-supply. Practically, we presume that every milk-farmer should submit the product of his kine to the county analyst before he ventures to send it into the market.

### ALDERSHOT AND SMALL-POX.

Those persons who never tire of decrying vaccination might profitably reflect on the immunity enjoyed by the camp at Aldershot. There has not, we have reason to know, been a single case of small-pox at Aldershot, and there can be no doubt in the minds of unprejudiced people that this happy state of matters is due to the excellent arrangements for securing the revaccination of every recruit in the Service. It cannot be doubted that constant intercourse must go on between London and Aldershot; but between vigilance and vaccination the disease has found no footing in the latter place. One soldier lately on furlough was known to have been staying with his mother, who had just died of small-pox. On returning to the camp he was put into quarantine until it was apparent that he was not the bearer of infection.

In view of the persistence of small-pox in London, and mindful of the sufferings which befell their borough ten years ago, the Nottingham Town Council have issued posters and are distributing an excellently prepared pamphlet by their medical officer of health, Dr. Edward Seaton. An attempt has been made to counteract the beneficial effects which the posters and pamphlet are likely to have by a correspondent of one of the local papers throwing doubt upon the policy of revaccination and quoting a series of arguments against *compulsory* revaccination, put forward in a recent discussion before the French Academy of Medicine on the subject. Nothing is said by this correspondent of the arguments to the contrary, although they have resulted in the Academy voting by a large majority for the establishment of both compulsory primary vaccination in France and compulsory revaccination.

The Midland Railway Company have prosecuted at the Bedford Petty Sessions two individuals (brothers) who had travelled by their line to that town while suffering from small-pox. In one case the individual was on his way from London to Leek, but his condition being discovered, he was removed from the train at Bedford and taken to the Small-pox Hospital there. The second case was curious. The individual sickened at a later date than his brother, but failing to obtain admission into a hospital in the metropolis, he deliberately travelled to Bedford in hope of getting admission into the hospital there, in which his brother was then under treatment.

The Lord Chancellor has declined to add to the roll of justices of the peace for the borough of Southampton the name of a gentleman who had been twice convicted and fined for offences against the Vaccination Act, notwithstanding he was sheriff of the town and county. In answer to a question on this subject in the House of Commons, the Home Secretary observed that "a gentleman who had not himself recognised the duty of obeying the law was hardly a suitable person to add to the roll of borough magistrates."

Small-pox, it would appear, has seized hold of Gravesend. Seventeen cases of the disease are under treatment in hospital there, while others are being treated in their own homes. In one instance, it is stated, where a child suffering from the disease was improperly lodged in a house occupied by other families, the magistrates refused to give an order for removal to hospital, and three of these families have since contracted the disease.

The want of an infectious disease hospital for Rochester and Chatham has now, it is reported, been met by the joint action of the Corporation of the former with the Local Board of the latter. The cost of the building is estimated at about £5000.

It is understood that the West Ham Local Board is about to apply for an injunction against the Poplar Board of Works in respect to their Small-pox Hospital in the West Ham district. It is not stated whether West Ham will seek an injunction against its own Small-pox Hospital, which adjoins the Poplar Hospital, or whether it will close it of its own accord, or whether it will use it if necessary.

The Corporation of Huddersfield have successfully prosecuted a householder for not having notified under the Local Act the existence of infectious disease in his family, a medical man not having been called in. This being the first case under the Act a heavy penalty was not pressed for, and the Bench simply inflicted a fine of 1*s.* and the expenses.

Opposition has been withdrawn to the Bill before Parliament authorising a company to construct conduits from Lancing, on the Sussex coast, to London for the supply of sea-water to the metropolis.

It is reported that at the request of the Metropolitan Asylums Board a second ship is to be prepared for the reception of small-pox patients, it having already been found that the *Atlas* will not be equal to the demands upon it.

Professor Ruskin has raised his voice against the pollution of Coniston Lake, and it appears likely that the Ulverston Rural Sanitary Authority will give ear to his remonstrances.

A French lugger recently put into Aberdeen with one of the crew ill from small-pox.

A fatal case of revaccination in a lady over sixty years of age is reported from Sittingbourne.

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

English urban mortality showed a slight increase last week. In twenty of the largest English towns, estimated by the Registrar-General to contain in the middle of thi year a population somewhat exceeding seven and a half millions of persons, 5194 births and 2967 deaths were registered last week. The births exceeded by 8, while the deaths were 290 below, the average weekly numbers during 1880. The annual rate of mortality in the twenty towns, which had been equal to 20·8 and 20·0 in the two preceding weeks, rose again to 20·3 last week. The lowest rates in the twenty towns last week were 12·6 in Brighton, 14·4 in Wolverhampton, 15·3 in Plymouth, 16·9 in Leicester, and 17·0 in Bradford. The rates in the other towns ranged upwards to 22·7 in Sheffield, 23·7 in Sunderland, 23·9 in Bristol, and 25·5 in Manchester. During the first nine weeks of the current quarter the death-rates in the twenty towns averaged 21·1 per 1000, against 23·2, the average rates in the corresponding periods of the five years 1876–80.

The deaths referred to the seven principal zymotic diseases in the twenty towns, which had been 396, 424, and 452 in the three preceding weeks, declined to 446 last week; these included 116 from measles, 91 from whooping-cough, 85 from small-pox, 60 from scarlet fever, 37 from fever (principally enteric), 43 from diarrhœa, and 14 from diphtheria. The annual death-rate from these principal zymotic diseases averaged 3·1 per 1000 in the twenty towns, and ranged from 0·0 and 1·0 in Plymouth and Brighton, to 3·4 in Leicester, 3·7 in London, and 4·0 in Sheffield. Measles showed the largest proportional fatality in Bristol, Sheffield, and Newcastle-upon-Tyne; scarlet fever in Wolverhampton; and whooping-cough in Leicester, Sheffield, Leeds, and Manchester. The 14 deaths referred to diphtheria included 9 in London and 3 in Portsmouth. Enteric fever caused the highest death-rate in Portsmouth, Hull, and Newcastle-upon-Tyne. Small-pox caused 90 more deaths in London and its outer ring of suburban districts, and 1 each in Liverpool, Manchester, and Newcastle-upon-Tyne; no fatal case of this disease was recorded in any of the seventeen other large provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had increased from 942 to 1552 during the four preceding weeks, further rose to 1644 on Saturday last; of these 583 were accommodated in the Convalescent Camp Hospital at Darenth. The new cases admitted to these hospitals, which had been 346 and 402 in the two previous weeks, were 359 last week. The Highgate Small-pox Hospital contained 86 patients on Saturday last, and 28 new cases were admitted during the week.

The deaths referred to diseases of the respiratory organs in London, which had been 256 and 241 in the two preceding

weeks, were 249 last week, and corresponded with the corrected average number in the last ten years; they included 133 from bronchitis and 84 from pneumonia. The annual death-rate from lung diseases, exclusive of phthisis, was equal to 3·4 per 1000 in London last week; while the rate from the same diseases was 5·2 in Liverpool and 3·5 in Salford.

The causes of 44, or 1·5 per cent., of the deaths in the twenty towns last week were not certified either by a registered medical practitioner or by a coroner. The proportion of uncertified deaths in London did not exceed 0·9 per cent., whereas it averaged 2·1 in the nineteen provincial towns. No uncertified deaths were registered last week in Brighton, Portsmouth, Norwich, Wolverhampton, or Nottingham; whereas the proportions of such deaths were largest in Salford and Oldham.

### HEALTH OF SCOTCH TOWNS.

In eight of the largest Scotch towns, having an estimated population of rather more than a million and a half of persons, the annual death-rate last week was equal to 20·6 per 1000, showing a slight increase upon the low rate that prevailed in the previous week; this rate was 0·3 above the average rate last week in the aggregate of the twenty large English towns. The ratio in these eight Scotch towns ranged last week from 10·6 and 13·7 in Paisley and Dundee, to 26·0 and 27·3 in Leith and Perth. The Registrar-General of Scotland again notes that he has not yet revised his estimates of population in accordance with the numbers recently enumerated; it is pointed out, however, that the rates in some of the towns, especially in Paisley, are probably over-stated through an under-estimate of their present population. The deaths referred to the principal zymotic diseases in the eight towns, which had been 61 and 72 in the two preceding weeks, declined again to 62 last week; they included 14 from whooping-cough, 14 from diarrhœa, 13 from scarlet fever, 10 from "fever," 6 from measles, 5 from diphtheria, and not one from small-pox. The annual death-rate from these zymotic diseases averaged 2·4 per 1000 in the eight towns, and was 0·9 below the average rate from the same diseases in the twenty large English towns. This zymotic death-rate ranged in the eight Scotch towns from 1·3 and 2·1 in Dundee and Paisley, to 3·5 and 3·9 in Leith and Perth. The 14 fatal cases of whooping-cough in the eight towns showed a decline of 5 from those returned in the previous week, and included 6 in Glasgow, 3 in Edinburgh, and 2 in Leith. The 14 deaths from diarrhœa were fewer by 4 than the number in the previous week, but in proportion to population were more than twice as numerous as in the twenty English towns. The fatal cases of scarlet fever, which had been 5 and 11 in the two previous weeks, further rose to 13 last week, of which 2 occurred in Glasgow, 8 in Edinburgh, and 2 in Leith. The 6 deaths from measles, however, all of which were returned in Glasgow, were less than half the number in the previous week. The 10 deaths referred to "fever" (including typhus, enteric, and simple) showed a further increase upon recent weekly numbers, and included 6 in Glasgow and 2 in Aberdeen. The annual death-rate from this cause in the eight towns was equal to 0·40 per 1000, and considerably exceeded the average fever rate in the twenty English towns. The deaths attributed to acute diseases of the lungs (bronchitis, pneumonia, and pleurisy) in eight towns, which had steadily declined from 140 to 89 in the four preceding weeks, rose again last week to 106, and were equal to an annual rate of 4·2 per 1000; the rate from the same diseases in London did not exceed 3·4.

### HEALTH OF DUBLIN.

The rate of mortality showed an increase again in Dublin last week. The annual death-rate in the city, which had been equal to 29·9, 25·2, and 24·9 per 1000 in the three preceding weeks, rose again last week to 26·4. The rate in the city averaged 28·6 per 1000 in the first nine weeks of the current quarter, against 20·7 in London and 29·6 in Edinburgh. The 169 deaths in Dublin last week showed an increase of 10 upon the number in the previous week, and included 12, or rather more than 7 per cent., which were referred to the principal zymotic diseases, against 14 and 13 in the two preceding weeks. Of these 12 zymotic deaths, 7 resulted from "fever," 4 from scarlet fever, and 1 from diarrhœa, whereas not one was referred either to small-pox, measles, diphtheria, or whooping-cough. The annual death-rate from these principal zymotic diseases did not exceed 1·8 per 1000, while the rate from the same diseases was equal to 3·8 in London and 3·3 in Edinburgh. The deaths referred to "fever" (including typhus, enteric, and simple) in Dublin, which had been 7 and 9 in the two previous weeks, declined again to 7 last week, but were equal to a rate more than four times as high as the average rate from the same cause in the twenty large English towns. The 4 deaths from scarlet fever exceeded the numbers returned in recent weeks. The deaths of elderly persons corresponded with the number in each of the two previous weeks, whereas those of infants showed a further considerable decline.

### THE HEALTH OF ROME.

A letter from the Rev. H. W. Wasse, Chaplain in Rome, which appeared in *The Times* of Wednesday last, aptly illustrates the danger of writing on health statistics without full acquaintance with the import of figures relating to this subject. The object of the letter is stated to be to counteract the effect of reports "as to the unhealthiness of Rome during the past season." Mr. Wasse's facts are, first, that among English Protestant visitors six deaths have occurred within the city since October last. Now, this information is absolutely valueless unless the number of such visitors was known, and even their bare number would not be much assistance, as it would be unwise to accept the crude death-rate among a fluctuating number of visitors of unknown ages as any test of the health condition of the city. Unfortunately, however, for the sanitary reputation of Rome, Mr. Wasse goes on to state, in the second place, that of those six deaths among English Protestant visitors since October two resulted from typhoid fever and one from diphtheria; in other words, that fifty per cent. of those deaths were referred to diseases of generally acknowledged filth origin. Well might the Roman authorities wish to be protected from their friends. It appears from the official returns of mortality statistics published in Rome, which are reproduced in the Registrar-General's Weekly Return, that the annual death-rate in that city during the first half of the current quarter averaged 26·6 per 1000, showing a marked decline from the rate that prevailed during the first quarter of the year. The recent death-rate in Rome, although showing a large excess upon the average rate in large English towns, does not compare unfavourably with the death-rates in most other European cities. The fatality both of typhoid fever and diphtheria very considerably exceeds that recorded in English towns, but has recently been below the Roman average. Small-pox caused 103 deaths between the 1st of January and the middle of May, but this disease was considerably more fatal in London during the same period.

## THE SERVICES.

### ARMY MEDICAL DEPARTMENT DINNER.

THE officers of the Army Medical Department held their first annual dinner on Saturday last at the Inns of Court Hotel, Sir William M. Muir, K.C.B., Director-General, in the chair. Nearly one hundred officers, past and present, attended, including Sir Galbraith Logan, K.C.B., Surgeon-Generals T. Longmore, C.B., A. Shelton, W. Rutherford, C.B., H. H. Massy, C.B., S. Fasson, R. Lawson, W. Maclean, C.B., J. A. Fraser; Deputy Surgeon-Generals C. D. Madden, J. Irvine, J. Hendley, C.B., F. Holton, J. P. Cunningham, J. O'Neal, C.B., T. W. Fox, J. E. Moffatt, J. Crerar, P. S. Laing, G. Anderson, J. Jee, V.C., C.B., J. Mure; Brigade-Surgeons J. B. C. Reade, J. Ekin, L. Kidd, G. M. Slaughter, O. Barnett, C.I.E., F. Collins, J. C. Johnston, J. Johnston, J. Adcock, E. D. Tomlinson, W. Creagh; Surgeon-Majors R. W. Jackson, C.B., H. R. Veale, T. N. Hoysted, A. F. Bradshaw, E. F. O'Leary, C. Mackinnon, I. Inkson, J. Warren, W. G. Don, W. C. Boyd, J. S. Comynd, F. Scanlan, T. Walsh, T. M. O'Brien, A. J. Ferguson, E. Hoile, A. Allan, J. E. Clarke, S. K. Ray, G. E. Will, C. H. Godwin, C. A. Maunsell, F. B. Scott, W. Nash, W. T. Martin, F. Howard, M. Cogan, J. Candy, A. F. S. Clarke, J. Maturin, R. Tobin, G. Evatt, H. W. Mackinnon, J. L. Notter, S. Moore, J. Macartney, T. J. Gallwey, J. D. Gunning, G. E. Dobson, J. Walker, E. V. MacSwiney, W. Gasteen, T. Ligertwood, J. G. Randall, G. C. Gribbon, J. E. Purdon, P. H. Johnston; Surgeons J. M. Beamish, H. Bradford, J. A. Smith, J. Martin,

H. A. Fogerty, J. Forrester, S. H. Carter, H. C. Kirkpatrick, H. Grier, C. C. H. Smith; Professors F. de Chaumont, F.R.S., W. Aitken, F.R.S., Flower, F.R.S., late 63rd Regiment; Drs. Farquharson, M.P., late Coldstream Guards, Pearson, late Rifle Brigade. Dr. Reid, Director-General of the Naval Medical Department; and Sir Joseph Fayrer, K.C.S.I., were guests of the officers.

ARMY MEDICAL DEPARTMENT.—Surgeon-Major James Bonnyman, M.D., has been granted retired pay, with the honorary rank of Brigade Surgeon.

Deputy Surgeon-General M. F. Manifold, Surgeon-Majors W. L. Farmer, B. J. Jasdowski, A. J. Bartley, and R. W. Hinds are on passage home from India in H.M. troopship *Euphrates*, which left Bombay on May 11th. Brigade Surgeon J. W. Hulseberg and Honorary Surgeon Munday of the Bengal Medical Service have been provided with passages in the same ship.

Surgeon-Major A. F. Preston, who was severely wounded at the battle of Maiwand, has been granted extension of leave from April 16th to October 16th, by the Commander-in-Chief in India.

Deputy Surgeon-General Simpson, Bombay Medical Service, has been appointed Principal Medical Officer of the South-Eastern Afghan Field force at Quettah.

Surgeon J. T. Carey, Army Medical Department, has been granted six months leave from India on urgent private affairs.

ADMIRALTY. — The following appointments have been made:—Staff Surgeon William D. Isaac, to the *Urgent*, vice Beale, sent home in the *Humber* in charge of invalids; Staff Surgeon William Galloway, M.D., to the *Griffon*, vice William D. Isaac; and Staff Surgeon St. Lawrence Ffrench Mullen, M.D., to the *Dasher*, vice William Galloway, M.D., in lieu of a surgeon; Surgeon E. W. Luther, to the *Warrior*, vice F. R. M. Loftie.

## THE INODOROUS PROCESS OF EMPTYING CESSPOOLS.

FOR the last nine months a company, called the "Société Anonyme des Vidanges Inodores à Vapeur de Paris," has been employed in Paris in emptying the cesspools with which that fair city abounds, by a novel, economical, and, in a sanitary point of view, a most admirable system, abolishing not only the filthy smells, but all the somewhat loathsome concomitants connected with night-soil men and their appliances. Anyone who has experienced the disgusting stench arising when cesspools are emptied in the ordinary way, must acknowledge that any plan which can effect the object with rapidity, cleanliness, and perfect immunity from smell of any description, is worthy of fair trial, and, if proving to do all it professes, of being regarded as a very great boon in sanitary reform. We had an opportunity last week, through the courtesy of the directors of the company, conveyed through T. Lawrie, Esq., of witnessing a practical test of the system at Kew. The process has been patented by M. Talard, one of the inventors, who was present at the trial, and who, with Mr. Lawrie, gave a clear explanation of the machinery and plant used in the system, before the experiment commenced. The following is a brief description of the apparatus used.

1. A small portable locomotive engine of five-horse power, fitted with a steam vacuum pump.

2. Receivers, made of light steel plates, barrel-shaped, and of a capacity of about three and a half cubic yards. They are mounted on four wheels, and are easily drawn by a pair of horses. A glass indicator is fitted at one side to show when the receiver is full, and at the lower end behind is a valve to which a flexible tube is attached.

3. A large covered waggon for stowing the pipes used in extracting the sewage; these pipes are partly flexible, partly galvanised iron, made in convenient lengths and fixed together by a remarkably ingenious lever joint, very simple and yet, with an india-rubber disc, quickly and hermetically sealing the end. The tubes are five inches in diameter; one of them is fitted with a protected glass box, so that the contents of the cesspool can be seen as they pass through. (It was stated that in Paris the body of an infant, a bunch of keys, a gold watch, and other articles had been detected passing through and recovered.)

The process of emptying the cesspits may be described as consisting of pumping the excreta by atmospheric pressure into the receivers, from which the air has been previously exhausted. So far the plant used. At Kew, a cesspit which was estimated to contain about five tons of sewage, and which had not been cleaned for twelve months, was selected for experiment. The engine was placed a short distance, some five or six yards, from the pit, which was in a garden close to an empty mansion; the pipes were taken from the waggon and connected together, one end fixed to a receiver, which was drawn up adjacent to the engine; the other plunged to the bottom of the cesspit; a canvas cover protecting the hole in the pit's mouth, and preventing the escape of any noxious gas. The pipes which connect the engine and receiver are flexible, two inches in diameter; these being attached, the engine was started. Should fetid gases exist, they are first extracted from the cesspits, passed through the furnace and burned. The receiver was then exhausted of air by the pump, and the valve opened; the contents of the cesspool rushed up, filling the vacuum in three minutes and a half; the valve was then closed, the pipes disconnected, and the receiver taken away, to be replaced by a second, until the pit was empty. Each receiver holds nearly four tons of matter, and the one under operation was full in less than the same number of minutes; two minutes more sufficed to clear the pit of its remaining contents. No smell of any kind was detected during the operation. The pipes were then sluiced with water and repacked in the waggon, the two receivers were drawn away by horses, and the trial, which was witnessed by a large number of scientific gentlemen, was finished, universal opinion being expressed that it was most satisfactory, and had thoroughly borne out the superiority claimed for the system by its inventors. It will be asked what is done with the receivers and their contents. In Paris they are discharged into closed barges, specially constructed, and which finally empty the sewage into the Seine. But they can equally be carried to farms and used for fertilising purposes, or discharge the sewage into filtering tanks, or taken to the coast for final disposal, according to local arrangements and requirements. It may be added that only four men are required to work the process, and the cost paid at present in Paris by the municipality to the company is five francs per cubic metre, or about 3*s.* 6*d.* per cubic yard; the cost in England is stated to be never less than 10*s.* per cubic yard. Another advantage claimed for the system is its workability by day. The trial we witnessed extracted, as before stated, five tons of sewage matter in about six minutes without dirt, smell, or annoyance of any kind. The pipes can be laid from a cesspool wherever situated, and, if necessary, could pass through a room without causing any perceptible odour; the occupants unless told would be unaware that anything of an unpleasant nature was being done. The company, we understand, contemplate working their patent in this country, and from our observation at Kew, we cannot but think the process is worthy the attention of all interested in sanitary work.

## THE SANDERS MEMORIAL.

AT a meeting of members of the medical profession held in the hall of the Royal College of Physicians of Edinburgh on the 23rd ult., resolutions were adopted to the effect that expression should be given to the esteem in which the memory of the late Professor Sanders is held, by the erection of a permanent monument; and that a committee, consisting of Dr. Haldane, Mr. Imlach, and Professor Maclagan, be appointed to consider in what manner this object may best be carried out, and to raise the necessary funds for doing so. This committee has now recommended that the memorial should consist of a monument, to be erected over the grave, and that drawings should be obtained from John Hutchison, Esq., R.S.A., of a monument, of which a bust, or medallion in high relief, of Professor Sanders should be a prominent feature. It has been ascertained that such a work would cost not less than £300. The drawings will be submitted to a general meeting of subscribers. Intimation of subscriptions may be made to the honorary treasurers and secretaries, Dr. J. Batty Tuke, 20, Charlotte-square, Edinburgh; and Dr. Blair Cunynghame, 6, Walker-street, Edinburgh.

## ROYAL COLLEGE OF SURGEONS.

AT an ordinary meeting of the Council of the Royal College of Surgeons, held on Thursday last, the report of the Committee for the nomination and appointment of examiners was received and adopted, after some discussion relative to the appointment of *substitute* examiners. The report of the President and Vice-Presidents of the Erasmus Wilson Fund was received and adopted. Mr. Marshall was unanimously appointed representative of the College in the General Medical Council as successor to Sir James Paget, resigned. The present professors and lecturers were nominated for re-election in July. A letter from the General Medical Council, relating to a compulsory preliminary scientific examination, was referred to the committee on further preliminary examinations, to consider and report thereon to the Council. A letter from the secretary to the Royal Commission on the Medical Acts was read, and the President and Vice-presidents were requested to take such further steps as they might deem necessary to secure a proper representation of the interests and opinions of the Council. There was a strong expression of opinion that the secretary, Mr. Trimmer, should be one of the representatives of the College to give evidence before the Commission.

## IRISH MEDICAL ASSOCIATION.

THE annual general meeting of this association was held in the Royal College of Surgeons in Ireland on Monday the 6th inst. The report stated that since the last annual meeting, the Registration of Births and Deaths Amendment (Ireland) Act had become law, and the Council, while regretting that some important clauses in the Bill were struck out, regard the Act, which affords a much more perfect system of registration, as a decided improvement in the law. The Bill to amend the law relating to medical charities in Ireland was not favourably received in the House of Commons, and it had been deemed better to have it withdrawn until the Legislature is more fully informed as to the nature and extent of the abuses to which the present system of Poor-law medical relief is subject. It was hoped that a measure would then be introduced which shall define clearly who are to be eligible to receive dispensary medical relief, the term "poor person" now adopted being too vague, and thus a stop may be put to well-to-do or comparatively wealthy ratepayers obtaining medicine and medical attendance gratuitously. The Council were gratified to report that the Bill for the amendment of the Vaccination Act was withdrawn. The question of superannuation had exercised the attention of the Council, and a deputation had an interview with the Chief Secretary for Ireland, and acting on his suggestion a Bill had been drawn up for presentation to Parliament, which had since been handed to Mr. Meldon and other members to introduce. The proposed Bill seeks that the provisions of the Superannuation Act of 1879 shall be extended in a slightly modified manner to the medical officers of the Poor-law services. The subject of the compulsory notification of infectious diseases had also occupied the Council, and last year a series of resolutions were adopted, which, while recognising the advantage of an efficient system of early and compulsory notification of infectious diseases, protested emphatically against the onus of such notification being imposed upon medical practitioners, and suggested that such duty should attach to the householders, for whose benefit the advantages of the proposition were intended. The Bill introduced by Messrs. Gray and Brookes was considered objectionable in some of the provisions, and measures were taken to endeavour to have the Bill modified, or rejected if necessary. Reference was also made in the report to the Lunacy Law Association (Ireland) Bill, and the Bill to amend the Coroners (Ireland) Act; and a scheme had been drafted proposing that all new entrants into the Poor-law medical service under the age of forty shall be obliged to contribute a small annual payment to a fund from which an annuity to each widow and orphan shall be payable, with an optional power to those at present holding office to become contributors to the fund on certain conditions. The report having been adopted, resolutions were carried to the effect that the Association is of opinion in reference to the Medical Act (1858) Amendment Bill now before Parliament, that no alteration of the existing law can be satisfactory which does not provide for a sufficient degree of professional competency, guaranteed by a uniform curriculum of study and examination, as well as by similarity of fees throughout the kingdom, a reconstitution of the General Medical Council, and adequate representation of the profession at large in that body; that poor-law medical officers are equitably entitled to superannuation as civil public servants; that the existing system under which medical relief tickets are granted has been productive of gross abuses, and that the Council be requested to seek a legislative remedy for the present system; that the scheme proposed for making provision for widows and orphans of poor-law medical officers is a desirable one; and that the extension to Ireland of the English system of inspection of vaccination, and the granting of rewards for excellence in results, is practicable and desirable, and would prove highly advantageous to the public interest.

The members, with some guests, dined together in the evening in the Albert Hall of the College of Surgeons.

## MEDICAL NOTES IN PARLIAMENT.

IN the House of Commons on Friday, June 3rd, petitions were presented from Joseph West, asking for inquiry to be made into the Vaccination Acts; also petitions from London and Devonport for the prevention of vivisection. An address was agreed to for a copy of a letter from the general commanding the forces in Ireland as to the expediency of extending the application of the Contagious Diseases Acts to Dublin, and the return was subsequently presented.

# Correspondence.

"Audi alteram partem."

## THE COLLEGES OF PHYSICIANS AND SURGEONS AND JOINT EXAMINATION.

*To the Editor of* THE LANCET.

SIR,—The feeling in England in favour of having some kind of joint board has its just root in the objection to the state of the law which permits registration on a partial qualification, and in the desire to see the Colleges of Physicians and Surgeons form a joint examination. The Colleges of Physicians and Surgeons of Edinburgh formed a joint examination twenty years ago; but, though thus far in advance of the London colleges, the weak point there is that the colleges continue to examine separately for their separate licences, on one of which registration may be effected. When I ask my friends of the Edinburgh corporations why they do not resolve to drop the separate examinations, the answer is they are afraid the London colleges would not follow their example; and when I ask friends of the London colleges why they do not voluntarily form a joint examination, and refuse the issue of partial qualifications, a like answer is made—that they are afraid the Edinburgh corporations would not do so. Each stands hesitating on the bank, afraid to take the plunge, though it must be now evident that the corporations must either take this step or be superseded.

Were such a junction for examination formed voluntarily, and a Registration Act passed requiring a complete qualification before registration, the licensing difficulty would be virtually at an end. I am satisfied, from what I have heard from members of the corporations of London and Edinburgh, that both are desirous of taking the step, and I am persuaded that if the mistrust were put aside an understanding might readily be come to by which both would feel free to proceed to form such a joint examination. No one who appreciates the value of these corporations to the profession, and who knows the honourable spirit which actuates their leaders, notwithstanding much that the public is asked to believe to the contrary, can wish to see the Colleges of Physicians and Surgeons put aside, if they will only move on with the times.

But if they still hesitate to resolve on the step before the Royal Commission has them in hand their fate seems inevitable. I am, Sir, your obedient servant,

Aberdeen, June 6th, 1881. JOHN STRUTHERS.

## SOLDIERS WIVES AS NURSES.

*To the Editor of* THE LANCET.

SIR,—With reference to the annotation in your journal of last week, page 925, on the subject of the employment of soldiers' wives as nurses, you truly observe "this important step was taken by an army medical officer in Dublin a few years ago;" but the real origin of this movement—viz., providing each regiment with qualified nurses—was as follows, and as some little fuss has recently been made over the subject at Woolwich, it may not be uninteresting to your readers to know the exact facts.

Some thirty years ago I was the surgeon of H.M. 9th Regiment, not long returned from India, and at the time quartered in Ireland. The regiment contained a very large proportion of women married without leave, and as the assistant-surgeon was in delicate health, a considerable amount of very troublesome night work was thrown on my shoulders. It occurred to me that the employment of one or more soldiers' wives—if educated for the purpose, in the very legitimate work of attending on their own sex—would relieve the medical officers of much troublesome and unpleasant duty, and at the same time confer a benefit on these poor women and children. I therefore addressed a letter to the C.O., the late Col. Davis, C.B., for transmission to the Secretary of State for War, pointing out the advantages both to the officers and soldiers' wives of having an educated midwife in each regiment. The reply was not unfavourable to the suggestion, but it pointed out there were no funds available for such a purpose! Ultimately permission was obtained to take a small sum, £20, from the canteen fund. An intelligent sergeant's wife was selected by me, and, after a short preliminary training, sent to the Rotundo Lying-in Hospital for final training, and in six months returned to the regiment as a qualified nurse. Her services proved so eminently useful and satisfactory, that when the regiment was proceeding on foreign service it was deemed advisable to educate another woman for the same purpose; but the War Office declined to sanction a further appropriation from the canteen fund.

A subscription was then set on foot, to which the married officers cheerfully and liberally responded, and a second nurse was thus provided. Without entering into the subject of the Nightingale nursing controversy, I believe this to be the only legitimate and proper mode of utilising the services of soldiers' wives as nurses, considering their proper sphere of usefulness among the women and children of the regiment, and not in the wards of a military hospital.

I am, Sir, yours obediently,

J. MOUAT,

London, June 6th, 1881. Surgeon-General (retired).

## A GENERAL MEDICAL INDEX.

*To the Editor of* THE LANCET.

SIR,—From Dr. Saundby's note on this subject, which appeared in THE LANCET of the 28th May, it would seem that some members, even of the literary portion of the profession, are not aware of the present position of the matter. Dr. Saundby suggests that international co-operation should be sought for in aid of the construction of a general index of medical periodical literature; but, fortunately, a scheme of this kind has become as unnecessary as it would have been impracticable, for the Index may be said to be in existence. Under the supervision of Dr. Billings the construction of a catalogue of the Library of the Surgeon-General's Office, United States Army, was commenced in 1873; and the first volume of the work (A—Ber) was, through the liberality and public spirit of Congress, published last year and widely distributed. Unfortunately, its title, "Index-Catalogue," by no means indicates the invaluable character of its contents. It not only supplies the list of books belonging to one of the largest medical libraries in existence, which, although itself a work of great interest, would prove so to only a limited number of persons beyond those who had access to the library, but it does far more than this; for it furnishes an index of the whole of the very large collection of periodical and serial publications contained in the library. It thus becomes a most valuable possession for the medical world at large; and if not exhaustive, is so comprehensive as to entitle it to be regarded as well-nigh complete. The second volume is now printing, and there can be no doubt that Congress, with its usual liberality, will provide the funds necessary for the publication of the remaining five or six volumes in rapid succession. The inexhaustible zeal and industry of Dr. Billings and his coadjutor, Dr. Fletcher, have thus succeeded in producing a work which will be as useful to the medical inquirer as the Catalogue of Scientific Papers of the Royal Society has proved to be to the man of science; indeed, it will be much more useful by being more detailed in its construction. How such an index will be valued and consulted can only be judged of by those who have observed the warm appreciation that has attended the publication of Neale's "Medical Digest," which yet embraces less than a dozen English periodicals. The periodical and serial publications of all times, and in all languages, which come within the grasp of the "Index-Catalogue," are numbered not by hundreds, but by thousands.

The Index-Catalogue thus renders the whole range of medical literature easily accessible down to the year 1878; and under the title "Index Medicus" its author has devised an annual supplemental volume, with the object of referring to all the articles which have appeared in each year. Two volumes of this Index have appeared, and that for 1880 is publishing in monthly parts; but although its price is moderate (25*s.*), there is great doubt whether it will be continued. For two years the spirited publisher, Mr. Leypoldt of New York, has lost considerable sums upon it, but has consented to try it for another year. With what success the appeal which was last year made to the profession has been responded to I have not heard; but if such a publication of signal utility to inquirers in all parts of the world is allowed to collapse for the want of the few hundreds necessary to secure its continuance, an opportunity will be lost not very likely to recur.

It will thus be seen that the great desideratum of a general index down to 1878 will soon be supplied, and all our energies should be turned towards securing the continuation of the Index Medicus. It is a subject well worthy of being brought before the approaching Medical Congress.

I am, Sir, yours obediently,

Royal College of Surgeons of England, June, 1881. JOHN CHATTO.

## DR. GEORGE HARLEY'S CACOGRAPHY.

*To the Editor of* THE LANCET.

SIR,—Many years have elapsed since my name has figured in your columns, and one reason for this has been that though I may have felt inclined to comment on communications addressed to you, I have generally found that by the exercise of a little patience some other correspondent has supplied the remarks I had to offer. Lest, however, I should be disappointed in the present instance, I lose no time in entering my protest against the singular display of unscholarly writing inserted in your last issue as the lucubrations of Dr. George Harley.

By your kind indulgence, Sir, the many have the opportunity of airing their crotchets in THE LANCET, but that now called in question is simply "out of all whooping." Reformed spelling, forsooth! Does not Dr. Harley perceive that his system entails also reformed pronunciation, and that, if ever we adopt the "Fonetik Nuz," we shall lose the derivation, and consequently the true meaning of our words?

It may be all very well for those who, from advancing years, may have forgotten much that they learned in their youth, among which orthography is perhaps one of the most notorious, to adopt that plan or licence which countenances spelling in any way that comes uppermost, and call it "reformed." But I hold that when a member of our profession addresses that body through your medium, he owes it that respect that he should solve his doubts by reference to some authorised source. I dare say I have woefully slipped behind the world, and that prepositions have come

to be used differently than heretofore. Formerly we used to say "the solution *of* a cause," and not "the solution *to* a cause;" but, no doubt, *nous avons changé tout cela.*

I have been a reader of, and subscriber to, THE LANCET from its very commencement, but I candidly avow I never found in it anything that has given me so great a shock as Dr. Harley's ill-considered production.

Yours faithfully,

JOHN CHIPPENDALE, F.R.C.S.

Upper Phillimore-place, Kensington, W., June 6th, 1881.

## SMALL-POX HOSPITALS.

*To the Editor of* THE LANCET.

SIR,—The *raison d'être* of the small-pox hospitals was to afford depôts for the segregation and isolation of all cases of that disease, and so prevent the spread of infection from individual to individual. How far such hospitals, as at present constructed and managed, have answered this purpose—how, as isolation depôts, they have proved themselves thorough shams—the following statistics of the neighbourhood of the Fulham Hospital will irrefutably show:—

| *Hospital receiving convalescent cases only, for three months up to Dec. 25th, 1880.* | | *Hospital fully opened for acute cases, for three months ending March 25th, 1881.* | |
|---|---|---|---|
| Kensington[1] ... ... | 2 | Kensington ... ... | 87 |
| Chelsea[1] ... ... ... | 3 | Chelsea ... ... ... | 73 |
| Fulham[1] ... ... ... | 3 | Fulham ... ... ... | 97 |

Thus showing that since the opening of the hospital for acute cases small-pox has been more than thirty-two times as rife as before.

At the commencement of the present year every practitioner living within the mile radius of the Fulham Hospital was asked by the Local Government Board to send in a record of every case coming under his cognisance between Dec. 25th, 1880, and March 25th, 1881. In other words, the outbreak, if any should occur, after the re-opening of the hospital for acute cases should be regarded in the light of an experiment that would most decisively affirm or negative the contention that small-pox hospitals are in themselves the originators of the oft-recurring and irrepressible outbreaks in their neighbourhoods.

It is now more than two months over the date assigned for the ingathering of these statistics, and the Local Government Board has not thought fit (in a matter so vital to the health of the community) to publish, whether in their favour or not, the deductions they have drawn from them.

I am, Sir, your obedient servant,

ALFRED GODRICH, M.A., M.R.C.S., &c.

Fulham-road, June 6th, 1881.

[1] These were sent from the three neighbouring parishes.

## CLINICAL TEACHING AT ADDENBROOKE'S HOSPITAL, CAMBRIDGE.

*To the Editor of* THE LANCET.

SIR,—In your issue of last week is a letter respecting clinical teaching at Addenbrooke's Hospital, Cambridge. It seems to me that requiring students, ignorant of anatomy and physiology, to attend, or, rather, to obtain benefit from attending, clinical lectures, is about on a par with expecting a man to appreciate the binomial theorem without a knowledge of the elementary facts of algebra and arithmetic. In any revision of the system of medical education, it seems to me that the first two years of student life should be spent in learning the scientific portion of a medical education, such as anatomy, physiology, chemistry and physics—if these two latter could not be learnt at school—materia medica and pharmacy; taking care these subjects are thoroughly learnt.

Then the next two years, or more if the student can spare time and money, would be devoted to medicine and surgery, medical jurisprudence and therapeutics (as something over and above materia medica). During these last two years clinical lectures and teaching would be thoroughly appreciated, especially if given by such accomplished professors as are at Cambridge. Then I would have each student, before he be allowed to practise on his own responsibility, be required to bring a certificate of having acted as assistant to a Poor-law medical officer, or to have had charge of patients at some dispensary where the sick are visited at their own homes. This period should last at least six months. Judging from my own personal experience and the effects produced on my brother, who is now at Addenbrooke's Hospital, no good results from clinical teaching before a knowledge of anatomy and physiology is obtained. During my own student life, now some eighteen years ago, I tried to carry out this system; and to show that it was not altogether unsuccessful, I may be allowed to sign myself

ONE WHO TOOK HONOURS IN ALL SUBJECTS AT THE SECOND M.B. EXAM., UNIV. OF LOND.

June 6th, 1881.

## A NEW ANTISEPTIC.

*To the Editor of* THE LANCET.

SIR,—In your issue of May 21st you published some remarks upon the recent important proposal of Professor Lister relative to eucalyptus oil, and in view of the interest thus excited the following notes may be found to have some value.

Dr. Gimbert of Cannes used for many years the leaves of the Eucalyptus globulus, instead of lint, for dressing wounds, with excellent results. He also described many experiments illustrative of the anti-putrescent properties of the oil of eucalyptus.[1] M. Gubler[2] and M. Marc have also both testified to the same effect, and employed an aqueous infusion of the leaves with great success in purulent catarrhal affections of the urethra and vagina. Again, Mr. Stearns, in a report[3] upon the oil of eucalyptus, writes, "Its chief value, however, is as a sedative and antiseptic in asthma and throat diseases, nasal catarrhs, and affections of the mucous membranes." He used both the alcoholic tincture and the spray of the pure oil.

Further, a "Report of the United States Commissioner of Agriculture"[4] embodies a number of experiments bearing upon the antiseptic and oxidising properties of the oil of eucalyptus, and in explanation of these latter the reporter accepts the writer's investigations which have from time to time been communicated to the Chemical Society of London and elsewhere.

I think I may fairly claim to have placed the antiseptic and oxidising properties of all the essential oils upon a scientific basis; and those of your readers who may care to become acquainted with the whole history of the Eucalyptus globulus and the characters and chemistry of the essential oils, I beg to refer to my "Nature's Hygiene,"[5] in which volume I have incorporated the entire results of my investigations so far as these had extended up to the end of 1879.

I now come to another and more important matter, and that is to announce the discovery of what is, I believe, a better antiseptic than oil of eucalyptus for use in surgery; at the same time it is chemically allied to that substance, and but for economical considerations can be produced therefrom. The product to which I refer is an oxidised oil of turpentine; in other words, the product which I obtain by forcing a current of air through turpentine in the presence of water (or otherwise) during a prolonged period, lasting in practice from one to two hundred hours. By this process of air-oxidation the turpentine absorbs an enormous quantity of oxygen, increasing in density accordingly, and losing its very volatile character. Although the product is not strictly speaking soluble in water, it forms in contact therewith, or even in contact with any moist surface such as is presented by every wound, certain principles which pass into aqueous solution. These principles are strongly antiseptic, and amongst them peroxide of hydrogen is to be numbered.

My product is much cheaper than oil of eucalyptus, it is more intensely antiseptic, and is, as I have shown, free from the objections which you, Sir, have already pointed

[1] See Pharm. Journ., vol. iv., p. 494.
[2] Journ. de Pharm. et de Chimie, Dec. 1871.
[3] Contributed to the Californian Academy of Science in July, 1872.
[4] An extract from which is given in the Pharmaceutical Journal, Jan. 12th, 1878.
[5] Published by Messrs. Baillière, Tindall, and Cox, 1880.

out to exist in the case of the eucalyptus oil. It is freely soluble in spirit, and is perfectly miscible with other oils, and with petroleum bases, &c. A gauze can be readily made from it which keeps its strength, so far as I can judge, very well; and what is of much importance, it is a very powerful oxidant as well as an antiseptic. Thus we have a quite new combination, which I earnestly trust will be found available for the purposes of antiseptic surgery.

I should add that, beyond my own investigation of its anti-putrescent and other properties, these have also been examined and certified to by Professor Roscoe, LL.D., F.R.S., of the Owens College, Manchester, and President of the Chemical Society, and Professor T. E. Thorpe, F.R.S., of the Yorkshire College, Leeds.

Finally, I may, perhaps, mention that Professor Lister has very kindly undertaken to make trial of the product.

I am, Sir, yours faithfully,

C. T. KINGZETT, F.C.S., F.I.C.,
Author of "Animal Chemistry, or the Relations of Chemistry to Physiology and Pathology," &c.

Tottenham, N., June 4th, 1881.

## MANCHESTER.

*(From our own Correspondent.)*

I AM glad to see that the Infirmary Board have at their last meeting instructed their secretary to write again to the Paving Committee of the Manchester Corporation, calling their attention to the subject of paving with wood, or other noiseless material, the thoroughfares round the Royal Infirmary. Doubtless this will be done at once; and while on this matter I would like to draw attention to the fact that St. John-street, in which the Eye Hospital and the Consumption Hospital are situated, is still unprovided with noiseless pavement, and that opposite St. Mary's Hospital only *one-half* of the breadth of the street is paved with wood. Now that the weather is hot and windows are kept open, the noise of the traffic over the granite setts is deafening and very detrimental to the welfare of the patients who have to lie on a bed of pain the livelong day, listening wearily to the grinding past of heavenly laden vehicles, longing for an interval of rest which never comes. I am sure this state of matters need only to be brought under the notice of the Corporation to be remedied at once.

It is reassuring to be told, now that we are on the brink of a possible epidemic of small-pox, that the accommodation at Monsal Fever Hospital is ample for at least ten times the number of infectious cases that have been received on an average during the last three or four months; and that, in addition to this, there is unoccupied land contiguous to the hospital, upon which temporary hospital accommodation could be provided sufficient for the needs of the whole population of Manchester and the surrounding neighbourhood. The Infirmary authorities deserve all credit for the manner in which they have dealt with the subject of provision for the treatment of infectious diseases in this city.

A very important meeting has just been held by the Medico-Ethical Association, to inquire into the present working and management of the Provident Dispensary scheme in Manchester. Several very remarkable revelations were made as to the management of the dispensaries and the method of obtaining members. The whole question was referred to a committee, which it is to be hoped will thoroughly investigate into the alleged abuses, and remedy them by an appeal to the committee of the Provident Dispensary Association—a body which is composed of gentlemen of standing in this city, and who would be the last in the world to put themselves in antagonism with the medical profession.

I observe that Dr. Glascott commences his summer course of ophthalmoscopic demonstrations at the Royal Eye Hospital next week. This course, which is given as a supplementary one to Dr. Little's systematic course of ophthalmology at Owens College, was well attended and much appreciated by the students last year, and owed much of its usefulness and interest to the large number of ophthalmoscopic cases examined by the class, each member being practically instructed in the use of the ophthalmoscope and allied methods of investigation of deep-seated eye disease.

## GLASGOW.

*(From our own Correspondent.)*

THE new wing of the Western Infirmary, which gives two hundred beds additional, or, in fact, doubles the accommodation of the institution, was formally opened a few days ago. This new wing has been built with funds left by the late Mr. John Freeland, of Nice, whose family was one of the oldest in Glasgow, the name of his father's firm appearing in a directory of more than a century ago, and existing till within the last few years. In the course of a speech made at the opening ceremony, the Lord Provost stated that even yet there is a deficiency of hospital accommodation in Glasgow, and referred to the effort which is being made to have a hospital erected on the south side of the city. He showed that, as regards the number of available hospital beds, Glasgow is far behind other large cities, and expressed a hope that any further increase made would not be accomplished by adding to the two existing infirmaries, which are large enough already, but by the erection of a hospital elsewhere.

The Hon. John Ure, Lord Provost of Glasgow, has issued a pamphlet, full of sound practical suggestion, in support of a movement on the part of the cities and large towns of Scotland for the amendment of the Public Health (Scotland) Act, 1867. He advocates, in the first place, a reconstitution of the Central Health Authority, on the ground that its present constitution affords no guarantee that it will efficiently administer public health functions; and proposes either that the present Board of Supervision should be cast aside altogether, and that the care of the public health in Scotland should be entrusted to a separate State department, or that the existing Board of Supervision should be strengthened by the addition to its membership of some who have made sanitary science a special study. The vesting of the powers of local authority in the parochial boards is shown to result, in rural districts, in very lukewarm enforcing of the Act, sometimes in its complete neglect. The rural sanitary areas, therefore, should be enlarged, either on the basis of the county or by combination of parishes, so as to secure administration beyond local influence. The following are some of the changes which Mr. Ure proposes should be made in the scope of the Health Act itself: that enlarged powers over the erection of new buildings should be conferred on the sanitary authorities; that compulsory hospital accommodation be provided in every district; that the registration of infectious diseases within each district should be compulsory; that the milk trade be put under the supervision of the sanitary authorities; that the supervision and enforcement of the Vaccination Act be transferred to the sanitary authorities; that the medical officer and sanitary authorities obtain power to make inquiry into the cause of any uncertified death.

## IRELAND.

*(From our own Correspondent.)*

THE annual meeting of the Fellows of the Royal College of Surgeons to receive and discuss the report of the Council for the past year was held on Saturday last, and was largely attended. The proceedings commenced with a resolution being proposed by Dr. Jacob and seconded by Dr. Martin, to the effect that the annual report was unsatisfactory, and that for the future a *précis* of the proceedings of Council should be sent quarterly to the Fellows for their information. It appears that a resolution had been adopted by the Council last year to carry out this arrangement, but in January last was rescinded, yet not the slightest reference to this important subject was included in the annual report—a convincing proof, if any were required, that the report sent to each Fellow excludes a large number of topics which those taking an interest in the proceedings of the College may never have an opportunity of becoming acquainted with. The only excuse given for not issuing a quarterly summary of the proceedings of Council appears to be the trouble of making an abstract and the expense. On a show of hands being called for, 26 voted for the resolution and 11 against, the result being that the recommendation that quarterly abstracts

should be issued will be brought before the new Council at their next meeting. After some criticisms on the manner in which the financial part of the report was presented, Dr. Mapother, a member of Council and ex-president of the College, proposed a resolution that it be recommended to the Council that the Education Scheme as amended in committee should not be enforced until equivalent regulations had been adopted by a majority of the other licensing bodies, and that a scheme should be prepared in conformity with the recommendations of the General Medical Council. He paid a high compliment to the thought and labour given to the scheme, but believed that it would have a most prejudicial effect on the finances of the College by reducing the number of the candidates for the licence, and urged that its adoption should be deferred, more especially as the Royal Commission now sitting would most probably suggest a measure which could be generally adopted. Further, he showed the mistake of placing such subjects as the elements of chemistry and botany in the first professional examination without requiring certificates of having attended lectures in those branches of medicine, and was of opinion that the proposed scheme would be more expensive to the student than the existing regulations for the licence of the College. The resolution was seconded by Mr. Jolliffe Tufnell, who urged various reasons for deferring the adoption of the scheme. Drs. Kidd, Barton, Jacob, and others combated Dr. Mapother's statements, and were of opinion that if the new regulations were adopted they would add to the prestige of the College without diminishing its funds. The resolution was ultimately lost, the numbers being 27 against, as compared with 31 in favour of the scheme. On Whit-Monday the annual elections for president, vice-president, secretary, and council took place, when Mr. Samuel Chaplin was elected president, Mr. J. Kellock Barton vice-president, and Mr. Colles secretary. For the council the only alteration was the substitution of Mr. E. H. Bennett, professor of surgery in the University of Dublin, for Mr. F. Alcock Nixon.

At an adjourned meeting of the committee appointed to effect the establishment of a convalescent home in Dublin or neighbourhood, for the reception of persons suffering from infectious diseases, held last week, a communication was read from the authorities of the Cork-street Fever Hospital. The governors of that institution stated that they were willing to undertake the expenditure of the money obtained for the erection of the proposed home in improving and remodeling their accommodation for convalescent patients, which is at present unsuitable and inadequate; and to devote any beds not required for their own patients to similar cases sent in from other hospitals. It was resolved that a general meeting of the subscribers be held to take into consideration the offer of the governors of Cork-street Fever Hospital; and it is probable that the suggested arrangement will be adopted, as, in spite of every effort made for obtaining funds for a convalescent home for infectious diseases, the donations so far have been altogether inadequate for the purpose.

At the distribution of the Hudson Scholarship Prizes connected with the Adelaide Hospital, Dublin, last week, the first prize of £30 and a gold medal was awarded to Mr. E. Gordon Hull, and the second of £10 and a silver medal to Mr. F. W. Elsner. During the meeting Dr. James Little gave an interesting outline of the career of the late Dr. Alfred Hudson, in whose memory these scholarships have been founded.

Dr. Cameron, medical superintendent officer of health for Dublin, last week gave the second of the series of lectures on health, which are now being delivered under the auspices of the Ladies' Sanitary Association, in the theatre of the Royal Dublin Society. "Food" was the topic selected, and the lecturer described the composition of the different kinds of food and drink, illustrating his remarks by means of diagrams, specimens, and experiments. He referred also to the processes of digestion, and gave some valuable information on the subject of cookery.

Dr. Joseph E. Miller, J.P., of Derry, has been presented with an address and valuable piece of plate by the Derry Town Council and citizens, on resigning the office of alderman, which he has held for nearly half a century. Dr. Miller, I may add, has been elected Mayor of Derry on five successive occasions.

The June medical examinations of the Queen's University in Ireland commenced last Monday, and will terminate on the 20th inst. A meeting of the University to confer degrees will be held in Dublin Castle on the 20th inst.

The thirty-ninth annual meeting of the Royal Medical Benevolent Fund Society of Ireland was held in the College of Surgeons last Monday, the chair being occupied by the President, Dr. McClintock, who regretted that the amount at their disposal for distribution for the present year fell short of the sum granted last year. It was therefore a matter of congratulation that the Society had about £17,000 invested, which returns an annual income of some £600. The committee in their report state that anticipatory grants to urgent cases had been given to the amount of £153; of the claimants three were medical men, and vouched to be in absolute distress. Further grants to the amount of £976 have been now allocated, making the total sum of the awards recommended since last report £1129, of which £340 was to medical men, £691 to widows, and £98 to orphans. The committee, in referring to the fact that there must be some 1500 medical practitioners in Ireland who do not contribute anything to the Fund, remark that the Society has to contend with deplorable apathy amongst those from whom it should naturally expect the warmest sympathy—namely, the provincial medical men. The office-bearers having been appointed for the ensuing year, a vote of thanks to the Chairman for presiding terminated the proceedings.

# Obituary.

## CHARLES HARRIOTT ROPER, M.R.C.S. ENG.

MR. ROPER, whose death, after a painful illness, took place on the 23rd ult., was the son of the Rev. R. Roper, Principal of Mount Radford House School, and Rector of St. Olave's. He pursued his professional studies at the Devon and Exeter Hospital, and afterwards at St. Bartholomew's, where he distinguished himself as a prize-winner. After obtaining his diploma as Member of the London College of Surgeons and his Apothecaries' licence, he commenced practice at Exeter, where he remained till his death. Mr. Roper was a Fellow of the Royal Microscopical Society, held the post of Senior Surgeon of the Devon and Exeter Hospital, and of the Lying-in Charity, besides other appointments in the neighbourhood. He had also at different times occupied important civic positions in Exeter. Such a man could not pass away without being greatly missed, and Mr. Roper's loss will for long be acutely felt by numerous patients and a large circle of friends.

# Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following Members having passed the required examination for the Fellowship on May 26th, 27th, 28th, and 30th, were, at a meeting of the Council held on the 9th inst., duly admitted Fellows of the College.:—

Bowlby, Anthony Alfred, L.S.A., Warrington-crescent; diploma of Membership dated July, 1879.
Boyd, James Stanley Newton, M.B. Lond., Huntley-street, Bedford-square; July, 1878.
Burton, Samuel Herbert, M.B. Lond., St. Giles-Street, Norwich; January, 1876.
Carter, Fredk. Heales, L.S.A., Bellevue-road, Upper Tooting; July, 1875.
Crow, Wm. Thomas, L.R.C.P. Lond., Park-lane Macclesfield; July, 1879.
Heath, William Lenton, The Plains, Totnes; July, 1877.
Pollard, Bilton, M.B. Lond., West Dulwich; November, 1879.
Reid, Robert William, M.D. Aberdeen, Nottingham-place, Regent's-park. (Not a Member.)
Sheppard, Charles Edward, M.B. and L.R.C.P. Lond., Addison-gardens; July, 1877.
Symonds, Charters James, M.D. Lond., St. Thomas's-street, Southwark; July, 1875.
Turner, Edward Beadon, L.R.C.P. Lond., Sussex-gardens, Hyde-park; July, 1876.
Wadham, Frederick, L.R.C.P. Lond., Bayhorne, Hurley; Nov. 1878.
Williams, William Roger, L.R.C.P. Lond., Bush Hill-park, Enfield; April, 1877.
Williamson, Robert Isherwood, M.B. Oxon., L.R.C.P. Lond., Ripon, Yorkshire; April, 1879.
Willis, William, M.D. Edin., Oak House, Monmouth; July, 1868.

Two other candidates passed the examination, but, being under the legal age (twenty-five years), will be admitted Fellows at a subsequent meeting; and ten candidates failed

to reach the required standard, and were referred for one year's further professional study.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on June 2nd:—

Cooney, John Edwin, Calcutta.
Sykes, Matthew Carrington, Barnsley.

The following gentlemen also on the same day passed the Primary Professional Examination:—

James B. Brewitt, St. Bartholomew's Hospital; Richd. Philip Samut, Guy's Hospital.

OVER fourteen tons of bad meat were seized last week in the Holborn district.

CAMBRIDGE UNIVERSITY.—At a congregation held on the 2nd inst., the degree of M.D. was conferred on Henry French Banham, St. John's College.

DR. ALFRED SANDERSON, Surgeon-Major, Madras Medical Establishment, has been placed on the Commission of the Peace for the county of Edinburgh.

SANITARY INSTITUTE OF GREAT BRITAIN.—At an examination held by the above Institute on June 2nd and 3rd, six candidates presented themselves, and the Institute's certificate of competency as Local Surveyor was awarded to Samuel S. Grimley and to Arthur Whitcombe; and the Institute's certificate of competency as Inspector of Nuisances was awarded to John Tatem Cowderoy, to Joseph Rains, and to William Wilkinson.

DR. J. E. MILLER, lately Alderman of the East Ward of Londonderry, has, on severing his connexion with the corporation, received a testimonial from his former colleagues and fellow-citizens in the shape of a solid silver centre-piece. The presentation was accompanied by an address, signed by the Mayor and the Town Clerk, conveying in very flattering terms the sense of the members of the Town Council of Dr. Miller's worth.

A VERY flattering testimonial has been presented by the members of the Portland Lodge of the Nottingham Albion Order of Odd Fellows to their medical officer, Mr. E. J. O'Mullane, L.K.Q.C.P.I., &c. The testimonial consisted of an illuminated address, mounted in a gold frame, and expressive of the subscribers' high sense of the value of Mr. O'Mullane's professional services, and of the estimation in which they hold him as "a gentlemen, a scholar, and a philanthropist."

THE BRITISH ASSOCIATION.—The first general meeting of this Association is fixed for Wednesday evening, Aug. 31st, when Sir John Lubbock, M.P., will assume the presidency, and deliver an address. On Thursday evening a *soirée* will be held, and on the following Friday and Monday evenings addresses will be delivered by Professor Huxley and Dr. Spottiswoode, President of the Royal Society. On Tuesday another *soirée* will take place, and the concluding general meeting will be held on the Wednesday after. The Chemical Science section will be presided over by Professor A. W. Williamson. The Biology section will have as President Richard Owen; the Vice-Presidents being Professor W. H. Flower and Professor J. Burdon Sanderson; Professor Flower will preside over the department of Anthropology, and Professor Burdon Sanderson over that of Anatomy and Physiology.

# Medical Appointments.

*Intimations for this column must be sent* DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest*

BARLOW, J., M.D., C.M., M.R.C.S.E., has been appointed Extra Surgeon to the Glasgow Royal Infirmary Dispensary.

BARNS, J. G., L.R.C.P.I., M.R.C.S.E., has been elected Assistant House-Surgeon to the Liverpool Dispensaries, vice P. O. Haynes, M.R.C.S.E., resigned.

COOPER, J. W., M.R.C.S.E., has been appointed Medical Officer of the Infirmary and Workhouse, St. George's-in-the-East, vice Belcher.

FISHER, W. W., M.A., has been appointed Public Analyst for the County of Oxford. Remuneration by fees.

GRUBB, P., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Warminster Urban Sanitary District.

HAMIL, R. J., M.R.C.S.E., has been appointed Assistant Medical Officer to the Infirmary and Workhouse, St. George's-in-the-East.

HITCHCOCK, Dr., has been appointed Medical Officer for the East District of the Gamrie Union, vice Collie, deceased.

KEMPE, C. M., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Shoreham Port and Urban Sanitary Districts.

MERSON, A., L.S.A.L., has been appointed Resident Medical Officer to the Workhouse of the Toxteth Union, vice M'Donnell, resigned.

NANCE, H. C., L.R.C.P.I., M.R.C.S.E., L.S.A.L., has been appointed House-Surgeon to the Whitehaven and West Cumberland Infirmary, vice W. E. Hoyle, resigned.

PRICE, W. H., M.R.C.S.E., has been appointed Medical Officer for the Western District of the Corwen Union.

RICHARDSON, J. H. H., has been elected Resident Medical Officer to the Wandsworth Provident Dispensary.

SYSON, E. J., L.R.C.P.Ed., L.R.C.S.Ed., has been reappointed Medical Officer of Health for the St. Neots, Caxton, and Arrington Rural Sanitary District for one year.

WANKLYN, A. J., F.C.S., has been reappointed Public Analyst for the Borough of Peterborough.

WHITE, T. G., L. & M.K.Q.C.P.I., L.R.C.S.I., has been appointed Surgeon to the Colar Gold Mining District, Mysore, India.

WILLIAMS, W. R., F.R.C.S., L.R.C.P., has been appointed House-Surgeon to St. Peter's Hospital for Stone &c., vice W. Neale, M.B., M.R.C.S.E., whose term of office has expired.

WILLS, J. P., M.B., has been appointed Medical Officer to the Metropolitan Convalescent Institution's new Home at Bexhill, Sussex.

WOODCOCK, R. F., L.R.C.P.I. & M.R.C.S.E., has been appointed an Honorary Medical Officer to the Royal Albert Edward Infirmary and Dispensary, Wigan.

# Births, Marriages, and Deaths.

## BIRTHS.

CHURCHILL.—On the 1st inst., at Cranley-gardens, South Kensington, the wife of Frederick Churchill, M.D., F.R.C.S., of a son.

CROOM.—On the 3rd inst., at 25, Charlotte-square, Edinburgh, the wife of Dr. Halliday Croom, of a daughter.

DAVISON.—On the 8th inst., at Langton House, Battle, Sussex, the wife of Rashell Davison, M.B., M.R.C.S.E., of a son.

DE BRENT.—On the 1st inst., at Church House, Aveley, Essex, the wife of Mortimer de Brent, M.R.C.S.E., L.S.A.L., of a daughter.

POTTER.—On the 6th inst., at George-street, Hanover-square, the wife of John B. Potter, M.D., F.R.C.P., of a daughter.

## MARRIAGES.

BROWN — THORBURN. — On the 6th inst., at John's-place, Leith, J. Graham Brown, M.D., M.R.C.P.E., to Jane Pasley Hay, daughter of the Rev. David Thorburn.

KEMP—HALAHAN.—On the 1st inst., at St. James's, Piccadilly, by the Rev. Dyer Tovey, John R. Kemp, L.R.C.P.L., M.R.C.S.E., to Harriet, eldest daughter of Peter Halahan, Esq., of South Kensington.

OGG—VINCENT.—On the 2nd inst., at St. Philip and St. James's Church, Whitton, Hounslow, Surgeon-Major G. S. W. Ogg, Madras Medical Service, to Clara, widow of J. H. Vincent, Esq., of Southampton.

READ—GIBBS.—On the 1st inst., at Waltham Abbey, Charles Read, F.R.C.S., of Upper Wimpole-street, to Ethel, second daughter of W. A. Gibbs, of Gilwell-park, Sewardstone.

REEVE—TODD.—On the 1st inst., at Hollington Church, near Hastings, by the Rev. — Adams, Henry Reeve, son of the late Henry Reeve, of Victoria-park, to Barbara, youngest daughter of John Waterloo Todd, of 301, Mile-end-road.

TURTON—RUGG.—On the 8th inst., at Hove Parish Church, by the Rev. T. Peacey, M.A., Vicar, James Turton, M.R.C.S.E., of Heckmondwicke, to Ellen Bradley, fourth daughter of Richard Rugg, F.R.C.S.E., of Lansdowne-place, Brighton.

WILKINS—MANNING.—On the 8th inst., at St. Mary's Church, Carisbrooke, Isle of Wight, by the Vicar, the Rev. E. B. James, M.A., Robert Bird, second son of Dr. Wilkins, of Newport, Isle of Wight, to Rosalie, only child of J. L. Manning, Esq., of Alvington Manor, Carisbrooke, Isle of Wight. No cards.

## DEATHS.

BIRD.—On the 1st inst., at St. Leonard's-place, York, William Bird, M.D., aged 49.

BISHOP. — On the 5th inst., at Tonbridge, Kent, Henry Bishop, M.R.C.S.E., aged 49.

CLOSE.—On the 5th inst., at Sorrento, Italy, Percy Close, M.R.C.S.E., youngest son of John Close, Esq., of Dringhouses, York, aged 24.

DOUGLAS.—On the 13th February, at Port Chalmers, New Zealand, Margaret Louise, younger daughter of T. Kennedy Douglas, M.B., C.M., Tapanui, Otago, New Zealand, aged 10 months.

LANG.—On the 1st inst., at Lansdowne, Southport, Phebe, widow of John Lang, M.D.

SHEPHERD. — On the 4th inst., at Swansea, James Shepherd, M.R.C.S.E., L.S.A.L.

WHITE.—On the 29th ult., at Perryhill, Aberdeen, Robert White, M.D., aged 61.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

## METEOROLOGICAL READINGS.

*(Taken daily at 8.30 a.m. by Steward's Instruments.)*

THE LANCET OFFICE, June 9th, 1881.

| Date. | Barometer reduced to Sea Level, and 32° F. | Direction of Wind. | Dry Bulb | Wet Bulb | Solar Radia in Vacuo | Max. Temp Shade | Min. Temp | Rain fall. | Remarks at 8.30 A.M. |
|---|---|---|---|---|---|---|---|---|---|
| June 3 | 30·14 | E. | 67 | 58 | 108 | 82 | 56 | .. | Hazy |
| ,, 4 | 30·00 | W. | 69 | 64 | 116 | 83 | 58 | .. | Bright |
| ,, 5 | 29·44 | S.W. | 58 | 58 | 73 | 64 | 53 | .. | Overcast |
| ,, 6 | 29·50 | N.W. | 51 | 50 | 86 | 60 | 46 | ·30 | Raining |
| ,, 7 | 29·57 | N. | 50 | 50 | 77 | 55 | 45 | ·64 | Overcast |
| ,, 8 | 29·90 | N.E. | 52 | 45 | 103 | 59 | 41 | ·05 | Cloudy |
| ,, 9 | 30·19 | N. | 49 | 43 | 92 | 56 | 39 | .. | Cloudy |

# Medical Diary for the ensuing Week.

### Monday, June 13.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS. — Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.: on Tuesday, 9 A.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Jonathan Hutchinson, "On the Laws of Inheritance in Relation to Disease."

### Tuesday, June 14.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2 P.M.
ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8 P.M. Mr. J. Park Harrison: Exhibition of Danish and French Photographs.—Major-General A. Pitt-Rivers, "On the Discovery of Flint Implements in the Gravel of the Nile Valley, near Thebes."—Mr. Alfred Tylor, "On the Human Fossil at Nice."—Mr. Gerrard A. Kinahan, "On Sepulchral Remains at Rathdown, Co. Wicklow."—Mr. J. H. Madge, "On Notes on some Excavations made in Tumuli, near Copiapó, Chili, in June, 1880."—Mr. F. E. im Thurn, "On some Stone Implements from British Guiana."—Mr. G. Bertin, "On the Origin of the Semites."
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8 P.M. Ballot.—8.30 P.M. Mr. Morrant Baker, "On a Case of Urticaria Tuberosa."—Mr. John Croft, "On Immediate Treatment of Fractures of the Leg by Plaster of Paris Splints."—Mr. C. T. Dent, "On the Pathology of Acute Periostitis."—Mr. Clement Lucas will show a Case of Aneurism by Anastomosis of the Face and Orbit, and a successful Case of Nephrectomy.

### Wednesday, June 15.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at 1 P.M.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at the same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN. — Operations, 2½ P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND. — 4 P.M. Professor Jonathan Hutchinson, "On the Laws of Inheritance in Relation to Disease."

### Thursday, June 16.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL. — Operations, 2 P.M., and on Friday at the same hour.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

### Friday, June 17.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Jonathan Hutchinson, "On the Laws of Inheritance in Relation to Disease."

### Saturday, June 18.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

# Notes, Short Comments, and Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*Local papers containing reports or news-paragraphs should be marked.*

*Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*We cannot prescribe, or recommend practitioners.*

*All communications relating to the editorial business of the journal must be addressed "To the Editor."*

*Letters relating to the publication, sale, and advertising departments of* THE LANCET *to be addressed "To the Publisher."*

### A NEW MEDICINAL FISH OIL.

THE oil of the oolachan or boulican (*thaleichthys*), a fish inhabiting the waters of British Columbia and Vancouver's Island in enormous quantities, is (says *The Colonies and India*) finding its way into the English markets as a substitute for the cod-liver oil. This fish is of so oleaginous a nature that it is dried and used as a candle by the natives of British Columbia, being known by the name of the "candle-fish." The oil has long been valued for its medicinal virtues among the native Indians, but has only lately been prepared in such a form as to compete with cod-liver oil, for which, however, it is said to be a valuable substitute.

*W. T.*—We regret we cannot comply with our correspondent's request.

*Dr. Robert Bell.*—We are unable to devote space to the subject at present.

*Fiat Justitia.*—The question should have been addressed to the Local Government Board.

*Dr. A. Harbinson.*—If microscopical sections are prepared and forwarded they will be examined.

### CONCURRENT VARIOLA AND VACCINIA.

*To the Editor of* THE LANCET.

SIR,—I cannot think that "M.B.'s" "facts" by any means explain my case, and I cannot believe that it is good pathology either to regard the "invasion" of small-pox as coincident with constitutional symptoms, or to look upon the incubatory period as one of absolute quiescence.

The authority of Section 86 of the "Medical Digest" notwithstanding, I venture to assert that the concurrence of confluent small-pox with vaccinia is extremely rare.

My case reached the period of greatest intensity four days after the appearance of the eruption. There was enormous swelling of the head and neck, obliteration of features, blindness, severe sore-throat, and partial delirium, which after about thirty-six hours rapidly abated, and the man has made a good recovery. Thus the case much resembles that of Mr. Box. As, however, out of thirty-eight cases of small-pox I have had under my care in the last month, two of the confluent kind have shown this quick abatement, I do not think it should be hastily assumed that the concurrence of vaccinia was the cause. "O. H.'s" case was one of revaccination; the other two, aged thirteen and twenty-six, of vaccination in infancy.

I must, I fear, still subscribe myself, Sir, yours,

June 7th, 1881. IN PERPLEXITY.

### ERUPTIONS FOLLOWING VACCINATION.

*To the Editor of* THE LANCET.

SIR,—I would be glad to know, through the medium of your journal, if vaccinators are unfortunate occasionally in having eruptions follow their vaccinations. I have had a few only, although I vaccinate some hundreds in the year. The other day I had a case with eruptions, and four other babies vaccinated with the same lymph are perfectly well. I believe that in those cases that "break out" there must be a predisposition to have some form of skin disease, and that the vaccination acts as an excitant. If vaccinators will please give their opinion and the percentage of cases that have occurred with them they will oblige.

I am, Sir, yours truly,

June 6th, 1881. T V

### A FREE PICTURE GALLERY.

RECOGNISING as we do the wholesome influence upon the general public and especially upon the industrial classes, of facilities for the study of works of art, we are glad to notice the liberality of the managers of the United Art Gallery, New Bond-street, in opening their exhibition free on every Saturday evening during the month of June. On Whit Monday gratuitous admission was accorded to the rooms, which were visited, we understand, by over 2000 people.

## THE NATIONAL VACCINE ESTABLISHMENT AND ITS LYMPH

*To the Editor of* THE LANCET.

SIR,—With reference to the article in your last issue, I wish to point to what seems to me to be a probable cause of the inefficiency of lymph supplied by the National Vaccine Establishment. Tubes sent to the National Vaccine Establishment by public vaccinators are submitted to an examination at the National Vaccine Establishment, and it is this examination I believe to be the great source of feeble lymph being stored by the National Vaccine Establishment, for if the lymph in a tube under examination is opaque, it is invariably rejected. Now, I have repeatedly noticed that, after carefully selecting and opening what are designated as "true Jennerian vesicles," and collecting lymph as it exudes from vesicles in half a dozen or more tubes, the lymph collected in the first two or three tubes is more opaque than the lymph collected in the remaining half-dozen or more tubes; and likewise, after selecting an arm with other than "true Jennerian vesicles"—viz., one having vesicles with well developed areolæ—that very often perfectly clear and transparent lymph will flow from them and in great quantity. I have recently collected and vaccinated with lymph of this description, and have utterly failed in both primary and revaccinations. I also find that vaccinations performed with the first lymph that flows on opening "true Jennerian vesicles" are most successful both as regards number of vesicles and the small amount of attendant inflammation.

I am, Sir, yours obediently,
Woolwich, June 7th, 1881. J. GASCOIGNE WEBB, M.R.C.S.

*To the Editor of* THE LANCET.

SIR,—As an impression seems to be abroad that the lymph supplied by the National Vaccine Institution is more or less inert, permit me to state that on the 10th inst. I had but two tubes of lymph (received from that institution) wherewith to revaccinate eighteen boys, and that of the eighteen revaccinated fourteen resulted in a perfect vaccine vesicle, and four in a modified one, showing that the virus "took" in every case. Everyone of these boys bore the mark of a previous vaccination.

My mode of proceeding was as follows:—My supply of lymph being so scanty, I blew out the contents of the two tubes on to a piece of glass, and added an equal quantity of water. I then scratched the arm with a lancet, but not so deeply as to draw blood, making the skin tense with my left hand. I then charged the lancet, and "dabbed" the diluted lymph well into the abrased surface, with the results above stated.

I have practised various modes of vaccination, but find this the most effectual. I am, Sir, your obedient servant,
P. KEELAN, Fleet Surgeon.
H.M.S. *Ganges*, Falmouth, May 26th, 1881.

*To the Editor of* THE LANCET.

SIR,—Until lately I should have been disposed to have joined in the outcry against the lymph supplied by the National Vaccine Establishment, but during the last twelve months I have been driven to seek supplies twice from that establishment, and on those occasions I adopted the plan of touching the point of my lancet with a wet sponge before charging it with lymph, and my success was all that could be desired.

I am, Sir, yours faithfully,
June 7th, 1881. A PUBLIC VACCINATOR OF FORTY YEARS' STANDING.

*To the Editor of* THE LANCET.

SIR,—I think we could help our London friends in the way of vaccine in their present emergency very considerably. If they would write at once to their country friends many could keep up a stock for a time; but as we cannot procure points in the country, let it be understood that they return uncharged points at once, as a neglect of this part cripples one's action. I am, Sir, yours truly,
Bocking, June 7th, 1881. THOS. TAYLOR.

*To the Editor of* THE LANCET.

SIR,—It is not often that I require vaccine matter. The week before last I wrote to the National Vaccination Establishment and received three tubes; with one of these I revaccinated a boy whose parents required it to be done. Nothing could be more satisfactory than the result of the use of the vaccine matter supplied.

I am, Sir, yours truly,
Marlborough College, June 6th, 1881. WALTER FERGUS, M.D.

*To the Editor of* THE LANCET.

SIR,—With reference to the correspondence on the lymph of the National Vaccine Establishment, I have to say I have been supplied on some twenty occasions during the last dozen years from that establishment, and have had only two failures.

I am, Sir, yours faithfully,
Brentwood, June 4th, 1881. J. R. WHITE, M.B.

*** This discussion must now cease.—ED. L.

## THE FALLACY OF HOMŒOPATHY.

*To the Editor of* THE LANCET.

SIR,—In your leader of last week you seem to invite a reply to your arguments. Had you been as familiar with the literature of homœopathy as I am obliged to be, you would have been aware that your argument that though the medicine be selected according to the rule *similia similibus* its action is on the principle *contraria contrariis*, has been advanced over and over again by partisans of the homœopathic school, so that we may adopt it and yet remain convinced of the truth of our homœopathic therapeutic rule.

With the exception, I think, of opium and alcohol, all the examples you give of the apparently opposite action of large and small doses are untenable, for the conditions under which they so act are not alike. Thus you rightly state that a full dose of aconite "will produce the local and general symptoms of fever and inflammation," but you should have added "on the healthy;" and, again, you are correct in stating that a smaller dose will "reduce the local and general symptoms characteristic of the state called 'feverish' and 'inflammatory.'" But, as you observe, this opposite action of the small dose is in disease, not in health. The same remarks apply to your illustration of the opposite effects of nux vomica in large and small doses. I cannot say anything about your illustration of the aperient action of cathartics in large and their constipating effects in small doses; the word "cathartics" comprises such an immense number of medicines that this opposite action may be true of some of them, but not of others; every "cathartic," besides an aperient, having other actions differing from those of other medicines placed by your school in the same category. I know nothing of the sedative or constipative action of calomel in large doses, and you do not mention whether this is an absolute or only a relative action. We are quite willing to grant that "as far as the action of remedies is concerned homœopathy is a misnomer," and I do not know of anyone in the homœopathic school who has even plausibly contended for the homœopathic action of the drugs he homœopathically selects, unless perhaps Hahnemann himself in one of his early theories regarding the mode of action of remedies. The theory to which I allude was never accepted by any of his disciples, and was tacitly abandoned by Hahnemann himself.

Thus you observe, as "honest men we must confess that you are right, and that the homœopathy of our system concerns only the mode of selecting drugs, not their action." But this is what we have held all along; so now that you know this we expect yet to have a more favourable opinion of us and our system than you have hitherto had.

But you say that should we take this ground (which we have always held), you will then have to show that homœopathy is untenable, "because the selection of a drug by an inverse process of induction from its supposed effects can never be a sure or safe guide to its use." You add, "the effects are not located in the drug!" But no one ever said they were; the drug is the cause of the effects it produces in the organism. Again you say, "the only rational way to try a drug is first in health and then in disease." Here, too, we are at one; only you do not say how the effects observed from the preliminary trial of the drug in health are to guide us in trying it in disease. Our "rule" says try it in those diseases whose symptoms resemble the effects of the drugs we have tried on the healthy. What better—what other—rule have you to offer? for it is impossible you can wish us to try a drug in all possible diseases after having carefully tried it on the healthy. The results of our trials of a drug in health must surely give us some clue to its application in disease; if not, what was the use of our painful trials of it in health!

I must join issue with you when you say "the homœopathist does not choose his drugs on the principle *similia similibus*," for we do endeavour to choose our drugs on this therapeutic rule; but we certainly do not abandon experience; in fact, the only thing we have to show the truth of our rule is experience, and it is a curious fact that one of Hahnemann's earliest essays in which he announced the homœopathic therapeutic rule bears the title of "The Medicine of Experience."

I heartily agree with you when you say "so far as the homœopathist is a practitioner of medicine at all, he must and does employ drugs on rational and common-sense principles," and my earnest hope is that the great body of the medical profession will speedily adopt our rational and common-sense principles, and thus will be effected that reconcilement of the two schools "on grounds welcome to both parties."

I am, Sir, your obedient servant,
London, May 23rd, 1881. R. E. DUDGEON.

*To the Editor of* THE LANCET.

SIR,—It is with much interest that I have read your leader on the "Fallacy of Homœopathy" in your last week's issue. Allow a "reputed homœopath" to say that it affords the alone instance in ordinary medical literature—perhaps with the exception of certain articles by Dr. Ross in the *Practitioner*—in which the subject receives sober and dignified treatment; and the suggestion with which your article closes—viz., that this "regrettable alienation and controversy" be done away with for ever, will strike a chord in the heart of every honest thinking medical practitioner.

With most of the subject matter of the article I thoroughly agree, and should have agreed at any time since I studied homœopathy. Most "thinking homœopaths" heartily acknowledge the law of similars to be a phenomenal, indicative, law only; they maintain vigorously the apparently opposite actions of large and small doses, and believe with you that these opposite effects do not lie in the dose, but in the different action of the system under different doses; and many of us hold in con-

sequence that though our selection of remedies is by the law of similars, the curative action of the small dose is by the law of contraries (antipathic).

On these points, then, THE LANCET and most "thinking homœopaths" (to our great surprise and joy, I own) are at one. Our points of difference are, therefore, narrowed to this:—"Is the selection of a drug by an inverse process of induction from its supposed effects a sure and safe guide to its use?" I answer that it most undoubtedly is so. As a matter of fact, it has historically been so over and over again. Aconite, nux vomica, ipecacuanha, opium, cathartic remedies which you have instanced in your article, were all used by "reputed homœopathists" in the diseased conditions you roughly name, because it was known that they produced similar effects in health, and this years—ay, a generation and a half—before they passed empirically into the ordinary practice of physic. When Ringer's experiments elicited the diaphoretic action of jaborandi, I at once began to use it in the night-sweats of phthisis. When the emetic properties of apomorphia were discovered "homœopaths" at once suggested it as useful in emesis. Moreover, it is the coarse, semi-poisonous effect of the large or middling dose that alone can be noticed by the physician in the healthy. The finer therapeutical action, so noticeable in disease—as, for instance, the "tonic action" of ipecacuanha in emesis—cannot be, or very seldom can be, from the very nature of the case, discovered in a healthy subject.

Look at it how you will, if you are to utilise in any great measure at all the pathogenetic effects of drugs on the healthy, it must be done by recognising the apparently opposing actions of small and large doses, and by giving the small dose where the large dose is homœopathically indicated. This is what I, for one, understand by homœopathy, and how, so far as in me lies, I endeavour to use it in practice.

One word more. If this is all the difference between us, is it worth while for a great and learned and dignified profession to keep up, as it has for so long done, its ban against a small if "thinking" minority? If I and the writer of your article are to prescribe the same thing in nearly the same dose in similar cases, is it worth while for him to excommunicate me because I arrive at my treatment by a consideration of the effects in health of larger doses, and he at his by a consideration of the effects in disease of smaller doses?—I am, Sir, yours faithfully,

HERBERT NANKIVELL, M.D. Edin.

Pennellyn, Bournemouth, May 23rd, 1881.

*To the Editor of* THE LANCET.

SIR,—As there are some important points in your leader of May 21st with which the majority of homœopaths, and I among the number, agree, I request a short space in your columns, as you say "we shall be curious to see how the homœopathists attempt to answer this objection." This "objection" is that "homœopathy is a misnomer, and involves a fallacy," inasmuch as, according to your correct description, the drug symptoms correspond with those of the disease when the drug is given in large doses only, whereas for curative purposes, as it is given in a small dose, it produces the opposite effect, or acts by *contraria contrariis*, and that therefore the "homœopathy of their system concerns only the mode of selecting drugs, and not their action."

I answer this "objection" by perfectly agreeing with you; but your suggestion of the really contrary action of "homœopathic" remedies is not novel. In "Fletcher's Pathology," published in 1842, we find the author speaking of homœopathic medicines and their theory of action, and saying "They cure, not by the stronger, but by the opposite impression which they make; so that homœopathic medicines, after all, operate on the antipathic principle." Again, Dr. Dadgeon, in his able lectures on "The Theory and Practice of Homœopathy," delivered in 1852 (p. 111), says, "Whilst this (the law of similia) expresses only the rule for the selection of the remedy, the actual curative process is rather *contraria contrariis*, for the impression we effect with our remedial agent is the opposite of the existing condition of the diseased part." And if you will consult our periodical literature since this date, and especially within the last ten years, you will find the same view is maintained by the majority of homœopaths. The law or aphorism *similia similibus curentur* is simply one for the selection of the remedy, and involves no theory of the actual *modus operandi* of it. Theories on this point have been numerous, beginning with Hahnemann himself, whose theory, it is well to notice, and those of all since him, simply endeavours to explain facts; but, whether right or wrong, this theory in no way alters the facts.

But it is quite another matter to say that because the actual *modus operandi* of the small dose in cure is contrary, not similar, to the disease, therefore "the homœopath does not give his drugs on homœopathic principles, and cannot claim it as homœopathic, because he employs it in doses which do not produce effects like, but widely unlike, the symptoms of the disease he seeks to cure." This is simply to play upon the word. A medicine which produces in full doses symptoms closely like those of a given disease, and at the same time is found to cure it in a small dose, whatever the theory of the action may be, is in the fullest sense homœopathic to the disease. The fact of this double relation of the drug to the disease was the thing that was recognised by Hahnemann and his followers when the name "homœopathy" was adopted to express the treatment of disease in accordance with this relation, and before any theory was mooted as to the *modus operandi* of the drug.

Some word must have been used and must still be used to express treatment in accordance with this drug and disease relation, and as not only was the similarity of the effects of the large dose to the disease the prominent feature brought into notice, but the actual guide for the choice of the remedy, so is such treatment properly and correctly styled homœopathic. I hope, therefore, that as since 1852 it has been admitted that the real action of the small dose of a medicine which is homœopathic to a case of disease is that of contraries, any play upon the word or the correctness of it as applied to the small or curative dose only will be abandoned, as beside the main point at issue.

Next, Sir, you state that this explanation of the action of the small dose "explains the reiterated assertion made by homœopathists, to the effect that remedies which they believe to act homœopathically are recommended by accredited authors in standard works on therapy. It must be so. All remedies lie open to the charge or claim of being "homœopathic," if the homœopathist may class them by the effects they produce when given in one dose, while he employs them in another dose, of which the effect is totally different, and nearly always opposite. This is quite correct, but we never claim that "accredited authors in standard works on therapy" adopt homœopathic treatment, unless we find them recommending the treatment of a disease by a smaller than the usual pharmacopœial dose of a remedy which in a full dose will produce in the healthy body a similar state of disease. You correctly state that the curative dose must be smaller than that which will induce the disease symptoms, and wherein (1) the drug chosen is one which has produced a similar state in a larger dose, and (2) it is given in a smaller dose than will aggravate, the treatment, I maintain, is homœopathic. How small the best dose is is merely a question of experience. The illustrations you adduce are amply sufficient; but, may I ask, how much nearer are you towards settling the question by saying "Now, how do nux vomica and its preparations act in small doses? Why, as tonics to the muscular system." In the same way the late Dr. Anstie, when reviewing in the "Practitioner" Ringer's first edition of his "Therapeutics," says of the action of drop doses of ipecacuanha wine in sickness, that "it is not homœopathy, but only shows that these small doses of ipecacuanha wine have tonic effect upon the vaso-motor nerves of the stomach." This may be very true, but as far as the real question at issue is concerned, it is merely throwing dust in the eyes. Is it not much better to men philosophical simply to admit the fact that these medicines cure in small doses symptoms similar to those they produce in large ones, and are undoubted examples of "homœopathically" acting remedies?

3. You state that "the selection of a drug by an inverse process of induction from its supposed effects can never be a sure or safe guide to its use." This is a question for experiment to settle. Homœopaths maintain that it is a sure and safe guide.

4. You say "it is unscientific to speak of a drug as producing 'effects' or 'symptoms' in the organisms. . . . . The effects are not located in the drug." Who ever said they were? Is not this also mere play on words?

5. "It follows that the only rational way to try a drug is first in health and then in disease." Precisely so; this is what Hahnemann did, but he and his followers confined their trials in disease to those cases where a similar train of symptoms was present to those produced by the drug on the healthy body.

6. "In short, it is not possible to predict the 'effect' which will follow its use until we have actually tested it first on a healthy and then on a morbid organism. The pretence of selecting remedies on any principle or theory of their mode of action in health alone is manifestly an affectation of the impossible." On this point all homœopaths join issue with you. Hahnemann "predicted" that camphor, veratrum, and cuprum would be the leading remedies in cholera. Arsenic was added to the list afterwards by "prediction."

We "predicted" that apomorphia, when first brought out as an emetic, would cure sickness, as ipecacuanha does, that chloral would cure urticaria, &c.; all which "predictions," and many others, proved true, as was anticipated. In fact, it is one of the strong points of the use of *similia* as our guide in selecting the remedy that we can thus "predict" its curative sphere as soon as we know its effects in health.

Nothing would rejoice the homœopaths more than to see a reconciliation of both "schools," "on grounds welcome to both parties in this regrettable alienation and controversy," to quote your own courteous words. Apologising for the length of this communication,

I am, Sir, yours, &c.,

Seymour-street, Portman-square, May 23rd, 1881. D. DYCE BROWN.

## DREAMS.

*To the Editor of* THE LANCET.

SIR,—I shall feel obliged by an answer from some of the very influential subscribers to your valuable paper to the following vital and important subject—viz., what, so far as is known, are the causes of dreams in general, their effect, and the best known method of avoiding them?

I am, Sir, yours obediently,

King's Bench-walk, Temple, June 2nd, 1881. GARAM.

## "HYPODERMIC INJECTION OF MORPHIA."

*To the Editor of* THE LANCET.

SIR,—Your correspondent, "J.," asks how best to ward off sickness following subcutaneous injection of morphia. I have extensively used the hypodermic method for twenty years. I would suggest nervine tonics both as food and drugs: as forming part of food malt extract and cod-liver oil; as medicine Fellows's syrup of hypophosphites, three times a day, given an hour before the injection; to persevere for some time. Electricity should also be tried to the painful part.

I am, Sir, yours faithfully,

Dinorwic Hospital, Llanberis, June 6th, 1881. T. HUGHES, M.D.

*Militia.*—Our correspondent is mistaken as to the relative rank of acting surgeons. The regulation on the subject is very clear. "The relative rank of medical officers in the volunteer force is determined by the same rule as that prescribed for medical officers of the army, except that acting surgeons always rank as lieutenants irrespective of their length of service. Surgeons appointed before October 1st, 1877, under previous regulations, will continue to hold the relative rank of major." We do not suppose that acting surgeons will get a step of rank on retirement, as no provision seems to be made for such a case.

*Dr. Dale* will see that we have gained the point in view, and the discussion will now cease. We are obliged for his letter.

*Mr. W. B. Hunter's* letter must stand over till next week.

*So. Bong.*—The law requires that the holder of an inspectorship of factories should be free from any personal interest in a factory or workshop he may be called upon to inspect.

## "LICENSING BODIES AND THEIR DIPLOMAS."

*To the Editor of* THE LANCET.

SIR,—Many persons object to part with diplomas of deceased relatives If documents of the kind were sent to headquarters, accompanied by a certificate of death, there to have "Deceased" punched into their substance, no amount of after-manipulation could render them available for illegitimate purposes.—I am, Sir, yours faithfully,

June 6th, 1881. J. B. GILL, M.D.

## VACCINATION REVIVED.

*To the Editor of* THE LANCET.

Sir,—On the 15th of last month I vaccinated a nurse who had been vaccinated on the right arm in four places without result four years ago. I vaccinated her on the left arm in four places, producing one fairly well marked secondary vaccine vesicle, with the usual inflammatory blush extending down the arm, and somewhat affecting the lymphatic glands of the axilla, chest, and neck.

Now occurred what was to me the extraordinary part of the case. The four places on her right arm where she had been vaccinated four years ago, without any apparent effect, became distinctly visible, exuded an appreciable amount of lymph, threw out a distinct areola, and became, in fact, tolerably characteristic of secondary vaccination. I can only account for the above facts by supposing that the vaccine virus inserted in these places four years ago had been revived and stimulated into action by the effects of the virus I inserted into the other arm on the 15th of last month. It seems to me that this affords a pretty strong proof of the capability of animal poisons to lie dormant, but perhaps a better explanation may be given.

I am, Sir, yours obediently,

F. A. J. SHEPHERD.

St. Olave's Union Infirmary, Rotherhithe, S.E.,
June 7th, 1881.

P.S.—I have thought of the possible bearing of this case on latent cases of hydrophobia. Is it possible that other diseases may exist for an indefinite period in a state of latency, and be called into action by their appropriate stimuli?

*Messrs. J. & C. Lloyd & Co.*—The controversy had better be confined to the journal of the Society in connexion with which the charge complained of was made.

*F. R.*—The L.R.C.P. qualification does not confer on the holder the right to style himself "Dr."

*Mr. Crespi's* letter arrived too late for insertion in our present number.

*Mr. Eddowes* (Stamford).—If the Licentiate of a College of Surgeons is admitted to be a surgeon it would be difficult to show that the Licentiate of a College of Physicians is not a physician. The possessor of such qualifications is a doctor in the vulgar sense of being a medical man, but not in the sense of being a graduate of a university, nor is he entitled to use the prefix "Dr."

*Appetitus Rationi Pareat.*—The appointment is legal.

*Questioner* should apply to the secretary, Mr. Blackett, 28, Green-street, Grosvenor-square, W.

COMMUNICATIONS, LETTERS, &c., have been received from—Professor Struthers, Aberdeen; Mr. Larkin, London; Dr. Hughes, Dinorwic; Mr. W. B. Hunter, Matlock; Dr. J. B. Tuke, Edinburgh; Mr. Webb, Woolwich; The Lord Mayor; Mr. T. A. J. Shepherd, London; Dr. Stephenson, Bradwinch; Dr. G. W. Potter, London; Mr. Henry Smith, London; Dr. Whishaw, Lucknow; Mr. Whittaker Hulke, London; Mr. John Wood, London; Mr. J. F. West, Birmingham; Messrs. Tillotson and Son, Bolton; Dr. Taylor, Bocking; Dr. Robert Bell, Glasgow; Mr. Mansell, Melton Mowbray; Dr. Shingleton Smith, Clifton; Mr. P. L. Booth, Barrow-in-Furness; Dr. Sheen, Cardiff; Dr. Ligertwood; Dr. Barclay, London; Dr. Dale, Lynn; Mr. W. Lake, Walthamstow; Dr. Whittaker, Glasgow; Dr. Curran, Ashton-under-Lyne; Dr. Anningson, Cambridge; Dr. Mosse; Mr. Philpot, London; Dr. White, Brentwood; Dr. Hooper, London; Mr. Kingzett, Tottenham; Mr. Godrich, Fulham; Surgeon-General J. Mouat, London; Mr. Denham, Southsea; Mr. W. H. Brown, Leeds; Dr. Harbinson, Lancaster; Mr. Heather, Dundrum; Mr. Clutton, London; Dr. Gill, Canterbury; Mr. Chippendale, London; Dr. Fergus; Mr. J. Chatto, London; Dr. Taylor, Trowbridge; Mr. Underwood, Liverpool; Dr. Macewen, Glasgow; Mr. Edmett, Liverpool; Mr. Salmond, London; Mr. M. Morris, London; Mr. Baird; Mr. Moody, Wandsworth; Mr. Dornan; Mr. Crespi, Wimborne; Mr. F. Page, Newcastle-on-Tyne; Dr. Gourley, West Hartlepool; Dr. J. C. O. Will, Aberdeen; Mr. Dolan, Halifax; Dr. Goyder, Bradford; Mr. Elrod, Vandalia Dr. Hood, London; The Managing Director of the United Arts Gallery; Medicus, York; So. Bong; W. T.; Gabam; Another Public Vaccinator; A Cambridge Graduate; Surgeon; Alpha, Howden; A Public Vaccinator of Forty Years' Standing; Bristolian; M.D.; &c., &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Buck, Newport; Rev. J. Slack, Newcastle-on-Tyne; Mr. Hughes, Halstead; Messrs. Bennett Brothers, Salisbury; Mr. Parkes, Hammersmith; Dr. Hincks, Hay; Mr. Drake, London; Mr. Browne, York; Mr. Hart, Birmingham; Mr. Townsend; Mr. White, London; Dr. Will, Aberdeen; Mr. M'Laren, Blairgowrie; Mr. Marshall, Mitcham; Mr. Oxley; Mr. Salterthwait; Mr. Gilbert, Hammersmith; Dr. Colman, Yeovil; Mr. Blakney, Boyle; Messrs. Keith and Co., Edinburgh; Mr. Dickson, Buxton; Dr. Hitch, Eastbourne; Mr. Wall, Wigan; Mrs. Rosse, Reigate; Mr. Snoad, Leicester; M. W.; Dr. W., Brighton; Medicus; H. H. H.; Operam; Beta, Leicester; M.D., London; M.D., Wragby; Alpha, Newcastle-on-Tyne; Delta, Sheffield; Surgeon, Sheffield; M.D., Brighton; Xema; Texas; Chirurgius; S. W.; M., Milford; T. S., Herne Bay; Omega; C. B. L., London; Dexter, Clapham; Nero, Bexley; Dispenser, Glasgow; M.D., Hull; G. B., Manchester; A. C. B., Harrogate; G. B., Borough; S. L.; M. G.; Physician, Leeds; Senex; C. F., Killigorden; M.D., Hull; Delta, Hammersmith; &c., &c.

*Glasgow Herald, Hawick Advertiser, Sanitary News, Lyttelton Times, Peterborough and Hants Standard, West Kent Courier, Gaceta Cientifica de Venezuela, &c.*, have been received.


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